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***McAdam Community Health Centre***

***Pilot Project***

***Evaluation Report***

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## LEGEND OF ACRONYMS

<b>ACLS</b>	Advanced Cardiac Life Support
<b>CCH</b>	Charlotte County Hospital
<b>CEO</b>	Chief Executive Officer
<b>CHC</b>	Community Health Centre
<b>CLSC</b>	Local Community Service Centres in Quebec
<b>CNS</b>	Clinical Nurse Specialist
<b>DECH</b>	Dr. Everett Chalmers Hospital
<b>DHCS</b>	Department of Health and Community Services
<b>ECG</b>	Electrocardiogram
<b>EMH</b>	Extra Mural Hospital
<b>EMP</b>	Extra Mural Program
<b>ER</b>	Emergency Room
<b>FCSS</b>	Family and Community Social Services
<b>FFS</b>	Fee-for-service
<b>FTE</b>	Full time equivalent
<b>GP</b>	General practitioner
<b>HMS</b>	Health Management Services
<b>LOS</b>	Length of Stay
<b>MHC</b>	Mental Health Commission
<b>MMH</b>	MacLean Memorial Hospital
<b>NANB</b>	Nurses Association of New Brunswick
<b>NB</b>	New Brunswick
<b>RN</b>	Registered Nurse
<b>SEP</b>	Single Entry Point

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## GLOSSARY OF TERMS

### **Area Resident**

An individual with "E0H 1K0" as a permanent residential postal code.

### **Catchment Area**

The surrounding area of a hospital within which boundaries residents are provided with health services. The catchment area for the former McAdam hospital encompassed a 25 mile radius.

### **Client**

A consumer of health care.

### **Clinical Nurse Specialist**

A nurse with a Masters degree in a nursing practice specialty who assumes the sub-roles of practitioner, educator, researcher, and consultant and acts as a change agent.

### **Co-Location**

Refers to health care providers being located in near proximity under one roof.

### **Constant Dollars**

The value of dollars measured in terms of the quantity of goods and services they command for a specified year. For example, converting 1995 dollars to 1991 dollars shows how much the 1995 dollars would have been worth in 1991.

### **Consumer Price Index**

An index that measures the change in the general price level. It is sometimes referred to as the cost of living index.

### **Dedicated Staff**

Staff that is assigned permanently to one location. At the CHC, nursing staff chose to be dedicated either to the nursing home or to the CHC.

### **Extra-Mural Hospital**

Commonly referred to as a hospital without walls, the EMH provides hospital services to patients in their homes through fourteen Service Delivery Units and branch offices throughout the Province.

### **Facility**

When used in the context of health service delivery in NB, a facility refers to a hospital, a health service centre, a community health centre or a nursing home.

### **Fee-For-Service**

A method of remuneration whereby physicians are paid in accordance to a pre-arranged fee schedule for each medical service they render to a client.

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**Focus Group**

A research method which is used to probe opinions to specific questions asked of participants in a group setting.

**Full-Time Equivalent**

One FTE consists of 1957.5 hours of work per annum.

**Key Informants**

Community residents and health care providers who are familiar with the CHC and, therefore, able to offer an opinion on various questions related to the CHC.

**Health Status**

The health condition of a population as measured by variables related to morbidity and mortality.

**Interdisciplinary Approach**

A mix of health and social service professionals from various disciplines who function as a collective. Team members interact and share common goals, collaborate and coordinate their services.

**Locum**

A physician who is linked, by billing number, to a physician he/she is replacing, for a minimum of three consecutive days per replacement session. A locum may work a full year, but may not replace any one physician for more than 183 consecutive days in a twelve month period.

**McAdam Community Health Centre Interim Evaluation Report**

A report, released in June, 1995, that reported the findings of the CHC for its first six months of operation (July, 1994 - December, 1994).

**Meditex**

The name of the computer system used in NB hospitals for capturing patient information and service utilization data.

**Needs Assessment**

The process which provides a systematic means of assessing the needs of a target group or population. In the context of a CHC, it refers to assessing the health needs of residents living within the catchment area of the CHC facility.

**Qualitative Data**

Information which is derived from a subjective perspective, and which requires the researcher to interpret the meaning of words, opinions, actions, described experiences within the context in which they occur. May also be referred to as hermeneutics. Qualitative data can be derived through interviews, focus groups, questionnaires, and through observation in the natural setting.

**Quantitative Data**

Information which is derived numerically. Unlike qualitative data, quantitative data can be analyzed statistically and used to predict.

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**Sessional Payments**

A pre-determined hourly rate paid to physicians working in ER.

**Tool**

An instrument such as a questionnaire that is used for collection of data. Tools were developed for assessing compliance to practice protocols through the mechanics of a chart audit.

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# EXECUTIVE SUMMARY

## Introduction

In 1992, the New Brunswick Department of Health and Community Services (DHCS) announced the first of two phases of a comprehensive rationalization and reform of its health and social service delivery systems. In that announcement, the Department signalled its intention to develop and test a model of primary health care for delivery from a community health centre site in a rural setting in New Brunswick. The model was to provide community-based care by using ambulatory/out-patient/outreach delivery methods; and it was to reflect the goals and values outlined in the Department's Corporate Plan. Accordingly, it was to facilitate equitable and easy access to the health care system; it was to be affordable within existing realities of financial constraints; it was to demonstrate effective use of human resources; and it was to build on responsibility sharing and partnerships within the continuum of health services. The community of McAdam, situated within the geographical boundaries of Region 3 Hospital Corporation, and 100 km from the nearest large urban centre, Fredericton, was chosen as the test site for a two-year pilot project. As part of the planning process, it was determined that the project would be evaluated twice throughout the time period: once after six months of operation, and again after 18 months.

## 1.0 The Model

The model developed for McAdam includes the delivery of both *primary health care* and *primary care*. Under the primary health care component, health promotion/disease prevention activities are identified and programs are implemented in collaboration with the community, and with health and social service providers from other agencies in the area. An intersectorial committee referred to as the Interdisciplinary Action Committee provides a coordinating mechanism for these activities. Community programming and educational activities are organized by the health care professionals in the Community Health Centre (CHC), with assistance from a clinical nurse specialist on contract for this project.

Primary care is delivered under the support/rehabilitative/curative component of the model, and includes clinic visits by clients to the health professionals at the CHC, as well as visits to the emergency service. Emergency service is available 24-hours, with a physician available either on-site or on-call 24 hours, and a nurse always on site. Formal protocols have been developed and approved by the Medical Advisory Committee of Region 3 Hospital Corporation to guide the model of collaborative practice in the clinic setting, and for the emergency service. The team, referred to as the "shared practice" team, is comprised of physicians, nurses, a physiotherapist, a dietitian, and a pharmacist. Under the clinic practice, protocols are in place for treating and managing hypertension and diabetes, and more recently, pediatric asthma. Six "shared practice" protocols are in place in the emergency service. These enable nurses to assess, treat and discharge

clients who present with complaints specific to the protocols. Otherwise, all emergency procedures are carried out under the guidance of a physician.

In essence, the unique features of this component include the expanded role of the nurse, who triages clients at the point of arrival at the CHC and, guided by approved "shared practice" guidelines/protocols, refers clients to appropriate members of an interdisciplinary team of health professionals. Co-location of professions in the Centre, common charting of client information and case management are also features of this form of collaborative practice.

Four Observation beds with an allowable maximum stay of 48 hours round out the model. Nurses can admit to these beds, one of which can be used as a palliative care bed should the need arise.

## 2.0 Scope of The Evaluation and Limitations

This evaluation is the final part of a two-phase process. It describes the degree of success that has been achieved in meeting the goals originally defined for this project. The complete time period for the evaluation study is 21 months from the date of the official opening of the CHC, June 1994. Given the short time period since implementation, a small degree of caution is recommended in interpreting results. As well, some of the following points should be kept in mind:

- The goals developed at the outset of this project did not include whether or not changes were expected in the health status of the target population. Therefore, this study did *not* investigate changes in the health of the population served by the CHC. Moreover, the study does not provide indication of whether the population/individuals have adopted improved lifestyle behaviours. A carefully designed study would need to be developed to answer that research question.
- This is not a comparative study, i.e., there is no comparison community/CHC against which to measure change. Therefore, causality is treated with caution in the interpretations of findings in this report.
- Important pieces of the model were not in place until the second year of the pilot. This includes the approved practice protocols for the clinic practice, a project coordinator with dedicated time for development activities, a clinical nurse specialist for community programming and a marketing strategy to promote awareness and utilization of programs. Consequently, the project has only now begun to operate fully.
- The *Meditech* automated data collection system became operational only in the last half of the second year of the project. Under this system, data elements are precisely defined and standardized. Consequently, only in limited instances could information reported in the six-month interim evaluation study, where data were manually collected and less standardized, be compared in the final evaluation study.



- Several types of hospital data were not available for the final study. These include per diem data for 1995–96, the cost of emergency room utilization at area hospitals by McAdam residents, and the cost of EMH services disaggregated to the level of the McAdam CHC catchment area.
- Given that cost-saving initiatives were implemented by Region 3 Hospital Corporation during the time period of this project, the cost analysis in this study does not attempt to attribute savings to the implementation of the CHC.

### **3.0 Methodology for Data Collection & Analysis**

Quantitative data are often viewed as ideal and preferred in research studies. However, in the evaluation of program effects, the structured nature of such data often prevents the uncovering of unanticipated and important side effects that occur in programs. This is especially true of multidimensional programs where services are varied, yet integrated, such as is found with the McAdam project. Therefore, both quantitative and qualitative data have been gathered and integrated in order to answer the evaluation questions.

Data were acquired by the following means: key informant interviews and community consultations, a telephone survey, administrative records for utilization statistics, program statistics and expenditures, emergency room surveys, and a chart audit. The chart audit was to assess compliance with the “shared practice” protocols, not quality of practice. Data were tabulated and described, and where appropriate, descriptive and inferential statistics were used.

### **4.0 Findings**

#### **4.1 Evolution of the Model**

- Though the project has experienced “growing pains” over the two years, it is emerging as a smoothly functional model for health care delivery in the area. Some of the challenges to achieving success have been as follows: (i) acquiring an understanding of the meaning of collaborative/shared practice, (ii) achieving a comfort level with working within a “shared practice” paradigm, (iii) developing and obtaining approval for the “shared practice” protocols (important for guiding practice by members of the interdisciplinary team of health providers), (iv) developing, early in the project, a communications/marketing strategy targeted to area residents, and (v) assigning dedicated staff in the persons of nurses, a project coordinator and a clinical nurse specialist to the project.

#### **4.2 Utilization of Primary Care Services (See Figure 1, Modules 2 & 3)**

- In 1995/96, on average, there were 793 clinic visits per month. No seasonal variations are seen in this number. More females than males use the services (68% vs. 56%), with most users over 25 years of age (73%). Of the two disease conditions covered by the “shared practice”

protocols, hypertension is the more common (164 clients vs. 61 clients for diabetes), although there are more follow-up visits, on average, for diabetes (10.8) compared with an average of 3.4 for hypertension.

- Of 225 clients seen by the physicians, 34% made repeat visits to the physician within a six-month period, while 66% made follow-up visits to the nurse. Under the "shared practice" paradigm, this would suggest that interdisciplinary referrals were occurring.
- There were 135 admissions to the observation beds over the 12 month period. Over half (53%) were categorized as symptoms, signs and ill-defined conditions. Two thirds of these admissions were discharged within the maximum 48 hour period. One third exceeded that time period, with 20% of those exceeding 72 hours. The latter were terminally ill patients. Almost three quarters (73%) of observation bed clients were discharged to their homes.
- On average, there were 79 visits per month to the emergency service. Slightly over one half of these (51.8%) were classified as non-urgent. The majority (69.1%) were discharged to their homes, with just over 14% sent on to other hospital facilities.
- It was reported in the *McAdam Community Health Centre Interim Evaluation Report* that in 1994-95, compared with the previous year, McAdam area residents increased their use of ER services at the CCH in St. Stephen and, to a lesser extent, at the DECH in Fredericton. Following the 18 months of operation of the CHC, that rate has decreased. A three month survey of ER utilization at the CCH has revealed that at least 25% of visits to the ER were attributed to the family doctor being located at that facility. The same survey, administered over a two month period at the DECH, showed that the primary reason for McAdam residents using the ER was due to referrals from McAdam. To a lesser extent, 27.7% said that they went to the DECH because there was "no doctor in McAdam." This was not a significant reason identified at the CCH. "No doctor" may be interpreted to mean that the client may have known that physician coverage was by "on call" rather than "on site." Because no pre-CHC data were available on reasons why residents use other emergency departments, no interpretation could be made regarding whether or not the change to a CHC influenced reasons for traveling to the DECH or to CCH.
- The number of all physician services, excluding those provided in the ER at the CCH and the DECH, declined by 43.5% from 1991/92 to 1995/96. Since there was no longer a 13-bed hospital at McAdam, the decline in services would be expected. However, examining utilization data for all years since bed closure shows that there has been a steady downward decline in physician services at McAdam. In similar manner, those services provided by GPs from outside the McAdam catchment area declined by 26.5% from 1991/92 to 1995/96. This would suggest that the change of a hospital to a CHC has not caused residents to seek medical GP services elsewhere.



### 4.3 Shared Practice (See Figures 1 & 2)

- A definitive statement could not be made regarding whether or not "shared practice" was occurring in the clinic setting (i.e., outpatient services) at McAdam. An audit of randomly selected charts of clients presenting with conditions covered by the "shared practice" protocols did not provide an answer to this question. The absence of a formal charting format tailored to capture information related to the practice protocols compromised this part of the evaluation and highlighted the need to review the charting procedure.
- In contrast to the chart audit, case exemplars and key informant interviews with members of the "shared practice" team provided evidence of understanding of the concept of a collaborative practice. Team members acknowledged that it has taken some time to understand this philosophy, but felt that the team has come together in an atmosphere of mutual trust and respect.
- Utilization data relating to the protocols provided some indirect evidence to suggest that shared practice was occurring.
- "Shared practice" in the emergency service was not found to be effectively used. From a total of 944 emergency visits in the year 1995/96, only 94 (10%) were potential visits under which the emergency service protocols for "shared practice" could be used. Of these 94, only in 37 visits did the nurse apply the protocols to assess, treat and discharge the client. However, in examining all 944 emergency service visits, the nurse treated 367 additional clients, but since those visits did not fall under the protocols, a physician was notified. The bulk of these visits were for analgesics, and for colds and flu.

### 4.4 Community Program Development and Delivery (see Figure 1, Module 1)

- An intersectorial committee made up of the "shared practice" team, other health service providers in the CHC catchment area, and community representatives has met regularly to identify and plan programming to respond to community health needs. This committee, identified as the Interdisciplinary Action Committee, has successfully functioned as the coordinating mechanism for this activity.
- The following program statistics reflect activity for 1995-96:
  - Community programming was attended by 649 individuals, with 998 contact "visits," meaning that at least a third of the individuals attended more than one program;
  - 24 different programs were developed and presented;
  - 104 community presentations were made;
  - All programs were generated through some form of community request.

### 4.5 Satisfaction of Staff and Community

- Satisfaction with the CHC project is extremely high, both with the residents of the area and with the staff at the Centre. Through focus group sessions and interviews with key informants, it was determined that the community is confident that their health needs can be met at the

Centre. Furthermore, they say that the quality of care has improved, especially in terms of accessibility to services. People feel they are being better served than before and say that the health for area residents has not diminished. The Centre is said to be responsive to the health needs of the area, and whenever requests are made for a program, the program is offered in a timely manner. The staff is praised as prime contributors to the success of the Centre.

Staff members are equally in agreement that people's health needs are met. Community programming with a focus on health issues related to area residents has been particularly successful promoting awareness of health-related behaviours; and they say that people are readily seeking services at the Centre. Specific to staff satisfaction, nurses especially appreciate being dedicated to the facility of their choice, and those in the CHC setting say that they are now in a better position to follow clients through case management activities. Physicians, especially the long-time physician in the community, appreciate the regular hours and help with on-call. Physicians feel that the health of the residents of the area has not been adversely affected by this alternative form of care.

#### **4.6 Expenditures**

- The final cost analysis for the McAdam project includes the following expenditure components: operating expenditures for the CHC facility, physician costs for services to the catchment area residents, ambulance costs, and the cost of inpatient admissions to DECH and CCH. Measured in constant 1991 dollars, the total cost of providing health services to residents of McAdam under the CHC model in 1995-96 was \$1,940,438. This was \$274,809 (12.4%) less than in 1991-92, the last year that a 13-bed hospital operated in McAdam. This figure does not take into account the costs to the EMH.
- When considering the net change in expenditure, aside from the omitted expenditures mentioned, one should also keep in mind that a number of cost saving initiatives were implemented by Region 3 Hospital Corporation which are likely responsible for at least some of the cost savings. Therefore, the cost analysis does not attribute the entire 12.4% expenditure reduction to the CHC project.
- There were no cost savings in providing 1.2 FTE salaried GP physicians to this project. While the cost of GP physician services to McAdam residents decreased by an approximate \$2,500, compared with 1991-92, medical services to the area residents dropped from 9,523 to 4,428. The question as to whether or not quality of service improved, i.e., more time spent with a client, was not answered within the scope of this evaluation.

#### **5.0 Summary and Conclusions**

The McAdam CHC project was established in order to study the impact of providing primary health care services to residents living in a rural NB community. Among the questions to be answered through an evaluation were: (1) to what extent did residents use other health care facilities, primarily hospitals, prior to and during the time of the project; (2) to what extent did the

utilization of primary care services result in changes in the overall cost of health care; (3) to what extent were services of all health providers coordinated in order to provide programming to meet community health needs; (4) what was the level of community and staff satisfaction; and (5) to what extent were health professionals able to collaborate within a multidisciplinary mode called "shared practice."

It is clear from this study that most of what was planned for McAdam has been implemented, though not without challenges. As expected with any new endeavour, the limiting factor in establishing components of the project has been the amount of time available to allow for the impact on utilization, costs and levels of understanding and acceptance to be measurable. In the short term (July, 1994 – March, 1996), changes in the operation of the model have resulted in a seemingly more efficient and effective service delivery. Through education efforts and involvement in the development and delivery of community programming, the health care team has achieved a clearer understanding of their respective roles as members of a collaborative, primary care service with a community outreach component. For the physicians, as reported in the *McAdam CHC Interim Evaluation Report*, while hesitant at the outset to embrace the "shared practice" concept, following approval of the practice protocols/guidelines for client visits and for the emergency service, they have developed a greater comfort level. Overall, the model has afforded a better quality working life for staff which, given regular working hours and skill-enhancing training, has provided a service that meets with community acceptance.

The triage and referral function is an important part of the model. It provides the nurse with an expanded role in decision-making, ensuring that the client's health care needs are met by the most appropriate service provider. Anecdotal accounts from the staff of health professionals, as well as the utilization data which show referral patterns between service providers, provide evidence that the interdisciplinary approach is understood. And though the chart audit did not in itself provide quantitative evidence for "shared practice" occurring, it did serve the useful function of spotlighting deficiencies in charting methods. Improvements in this function are presently underway.

In planning for the CHC, it had been suggested that other health providers serving this target population would use the Centre as the site of service delivery, and perhaps even co-locate their offices in the Centre. Public Health, FCSS Outreach, EMH and Mental Health were some of the potential users. To date, these service providers use the Centre to meet clients, though they have not relocated their offices there. As well, they are active members of the Interdisciplinary Action Committee and in that role help to identify potential programs/activities to meet needs in the area.

In relation to coordination of services among service providers, all health agencies report a positive working relationship with the Centre's staff, although Public Health has a concern that their services are being duplicated. Examples of overlapping programs include prenatal training, and programs offered in the schools. However, it should be noted that in order to optimize the use of financial resources, Public Health only offers programs when a minimum number of participants are registered. This difference in the ability to offer programs has the effect of switching service delivery away from one sector (and one budget) of the health system and moving it to another sector.

Overall, the project has shown a net reduction of \$274,809, or a net change of -12.4%. Included in this figure are initiatives implemented through Region 3, that are independent of the strategies put in place for the CHC model. Since the cost analysis does not take into account the costs associated with EMH, social service delivery and public health activities in the area, the cost of health care is understated. Nevertheless, with the enhanced health promotion/prevention services to the area it may be speculated that the long term result of this model may be to reduce costs to the overall system. A controlled study of longer term would need to be designed to measure this possibility.

## 6.0 Recommendations

### *Generic*

1. Needs assessments provide important information on the health and behaviour of communities, and they are an important tool in the development of a primary health care mode of service delivery such as was piloted in McAdam. However, to be useful, assessments must be tailored to the target population, be representative of all ages and be administered at the time of year that will ensure the highest numbers of respondents.
2. Members of the "shared practice" team at McAdam stated that the lack of clarity in roles and responsibilities, and absence of understanding of the philosophy of "shared practice" hindered project development. Activities and training to prevent this confusion should be undertaken early in project planning and implementation.
3. Further to the above item, dedicated management in the person of a project coordinator, and a clinical nurse specialist to facilitate community programming are essential to ensuring coordination, planning and implementation of a change project.
4. To support the work of an interdisciplinary team, and to facilitate the triage function, health professionals should be physically located in near proximity in order to promote the exchange of information relative to management of clients and services.
5. Nursing staff in the McAdam model reported that working in two very different modes of service delivery (CHC and the nursing home) was not conducive to client case management nor to community program planning. Dedicated nursing staff would seem to be essential if these activities are to function effectively.
6. The practice protocols developed for the emergency service in McAdam did not, in the final analysis, reflect the most common presenting conditions. It becomes apparent that the reasons for using emergency services in a given facility should be studied *before* selecting the presenting conditions around which to develop practice protocols. This would also apply to selecting conditions best suited for collaborative practice in the clinical setting.
7. Changes in the utilization by target populations of emergency departments in neighboring facilities to a CHC can indicate the degree of acceptance of a change in the method of health delivery. In order to be able to measure this change following reorganization of a hospital facility to a CHC, the use of other emergency departments by target area residents should be



tracked *before the change occurs* in order to obtain the necessary baseline data for comparison purposes.

8. Innovative and creative marketing strategies contributed to the general understanding and level of satisfaction of the public regarding the services offered at the McAdam CHC. To support a change in health service delivery, marketing through communication is essential if community participation and satisfaction are to be achieved.

***Specific to the McAdam project***

9. In view of the difficulties encountered with the chart audit, the re-formatting of chart information, and training on types of information to record would be indicated.
10. For the duration of the project, nurses were protected by Ministerial letter which allowed them to expand their roles according to the "shared practice" protocols without fear of legal prosecution. This was necessary in order to pilot the concept of a collaborative practice. Should the status of the project change from its present pilot designation, this should be reviewed.
11. Duplication of some services, coupled with philosophical differences among the different health professionals concerning the delivery of services, indicates that more collaboration and coordination efforts are needed between health service providers.



## INTRODUCTION

In 1992, the New Brunswick Department of Health and Community Services (DHCS) announced the first of two phases of a comprehensive rationalization and reform of its health and social service delivery systems. In that announcement, the Department signalled its intention to develop and test a model of primary health care for delivery from a community health centre site in a rural setting in New Brunswick. The model was to provide community-based care by using ambulatory/out-patient/outreach delivery methods; and it was to reflect the goals and values outlined in the Department's Corporate Plan, **Appendix B**. Accordingly, it was to facilitate equitable and easy access to the health care system; it was to be affordable within existing realities of financial constraints; it was to demonstrate effective use of human resources; and it was to build on responsibility sharing and partnerships within the continuum of health services.

The community of McAdam, situated within the geographical boundaries of Region 3 Hospital Corporation, and 100 km from the nearest large urban centre, Fredericton, was chosen as the test site for a two-year pilot project. The task for planning this initiative fell, in the first instance, to a committee of representatives from Region 3 Hospital Corporation and the DHCS. External advice, solicited from a broad forum of health care providers and community representatives, guided the Committee in the strategic planning. Included in consultation/advisory process were the NB Medical Society, the Nurses Association of New Brunswick (NBNA), the Faculty of Nursing at the University of New Brunswick, the NB Health Care Association, the Extramural Hospital (EMH), representatives of the Community and the Nursing Home Board in McAdam, as well as appointees from the Village Council.

Subsequent to this initial phase, the project was handed over to Region 3 Hospital Corporation for further plan development, and subsequent implementation. To facilitate that process, a consultant was contracted to complete the design for the model, and to develop a timeline for start-up activities. The consultant's report was presented to a joint Project Steering Committee made up of Region 3 Hospital Corporation and the DHCS in January, 1994 (1). In June, 1994, following renovations to the former hospital, the McAdam Community Health Centre (CHC) was officially opened by the Minister of Health and Community Services, Dr. Russell King.

Before 1992, health care for the residents in McAdam was provided by Family and Community Social Services (FCSS), Public Health (PH), Mental Health Commission (MHC), and the EMH, all operating from their regional offices in Fredericton. In addition, there was in the community an acute care hospital, the MacLean Memorial Hospital (MMH), which served the residents living within a 25 mile radius catchment area. The hospital also provided emergency services for the neighboring community of Vanceboro, Maine. Medical services were available at the hospital, with obstetrics and surgery referred to other larger facilities. The MMH was attached to a 36 bed nursing home, with nurses rotating through both facilities. Medical services in both facilities were provided by a physician of long standing in the community, and by a second physician from Fredericton who provided on-call relief.

Following health reform, or rather as a result of it, all but four beds were removed from the hospital, and its status and mode of service delivery were changed from that of an acute care facility to what

is now the CHC. At the same time, a satellite office of the EMH was opened in the Harvey Station village to service both Harvey and the adjacent McAdam area.

It is noteworthy that in 1991/92, the DHCS had established the Single Entry Point (SEP) program, offering an array of social, physical and mental health services that enable seniors to remain longer, independently, in the community. Also in the same year, the Ambulance Services Division within the DHCS initiated improvements to its service by requiring, among other things, a higher level of skills and training for ambulance attendants. Initiatives such as these, i.e., EMH and SEP, and strengthening of the ambulance service, provided the system infrastructure to support the downsizing of the hospital and the testing of a community health centre model.

In attempting to make clear some of the key events/activities that have led to the present working model of the McAdam CHC, a chronological list of milestones is provided on the following page of this report.



## **McAdam CHC Chronology of Events**

<b>March</b>	<b>1992</b>	Rationalization and Reform of Health Delivery in New Brunswick
<b>April</b>	<b>1992</b>	Operational Planning for the Community Health Centre Model
<b>December</b>	<b>1992</b>	Acute Care Bed Closure
<b>January</b>	<b>1993</b>	Model Finalized and Timeline for Implementation Developed
<b>June</b>	<b>1993</b>	Emergency Service Protocols Approved
<b>July</b>	<b>1993</b>	Method of Physician Remuneration Changed From Fee-For-Service to Salary
<b>September</b>	<b>1993</b>	Interdisciplinary Committee Formed
<b>November</b>	<b>1993</b>	Needs Assessment Survey Completed
<b>January</b>	<b>1994</b>	Evaluation Framework Completed
<b>March</b>	<b>1994</b>	Building Renovations Completed
<b>July</b>	<b>1994</b>	CHC Officially Opened
<b>February</b>	<b>1995</b>	Shared Practice Protocol for Diabetes Approved
<b>May</b>	<b>1995</b>	Shared Practice Protocol for Hypertension Approved
<b>May</b>	<b>1995</b>	Designated Project Coordinator Hired
<b>May</b>	<b>1995</b>	Interim Evaluation Report Completed
<b>June</b>	<b>1995</b>	Clinical Nurse Specialist Hired
<b>February</b>	<b>1996</b>	Shared Practice Protocol for Pediatric Asthma Approved

## **PART 1.0 EVALUATION PROCESS**

### **1.1 Committee Participants in the Evaluation Process**

The evaluation framework was developed by the members of an Evaluation Framework Development Committee made up of representatives within the DHCS and from the Region 3 Hospital Corporation. Consultation and advice on the framework was received from the McAdam CHC health professionals, as well as from the NB Medical Society and the NANB.

The evaluation study was conducted by the Evaluation Working Committee, again with representation from the Corporation and the McAdam CHC.

The evaluation process was guided by a steering committee made up of senior managers within the DHCS and Region 3 Hospital Corporation. As previously mentioned, participants in the evaluation processes are listed in **Appendix A**. The Terms of Reference for the Evaluation Working Committee is found in **Appendix C**.

### **1.2 Rationale and Scope**

At the same time the McAdam CHC test project was being planned, it was determined that over the duration of the project, two evaluations would be completed. The first evaluation was to be a formative study to assess progress in implementation following six months of operation. That study was carried out by the Program Analysis and Evaluation Unit of the DHCS, beginning in January, 1995; with the final report completed in May, 1995 (2).

The second study was to determine the overall success of the project after 18 months of operation, beginning July 1, 1994. That evaluation was to begin in January, 1996. However, because of the immaturity of some operational aspects of the model, the evaluators recommended to the Steering Committee that evaluation be delayed an additional three months to allow parts of the project to stabilize. As well, the extended time allowed the administrative staff at the Centre to enter utilization data for previous months (back loaded to April 1, 1995) into the newly installed Meditech computer system. Accordingly, the period for evaluation, i.e., July 1, 1994 to March 31, 1996 covers 21 months of operation.

### **1.3 Project Goals and Evaluation Framework**

The Framework for both evaluations was based on the five Project Goals developed by the Implementation Committee earlier in the project. These Goals and their Objectives, and the Evaluation Framework, are found in **Appendix D**. The main themes are those of service utilization, the efficacy of "shared practice," coordination with other services provided by community-based health/social service providers, community acceptance and changes in awareness and practice of health promoting behaviours through programming. As shown in the matrix table that accompanies the Evaluation Framework, the evaluation questions and measures reflect these themes. The present evaluation report is also structured according to the themes.

### 1.4 Limitations of The Study

**Improvement of health status and health-related behaviours** — This final evaluation study concentrates primarily on answering whether or not the goals of the project have been met. For the most part, it is both a formative, as well as a summative evaluation. This study does not investigate whether changes have occurred in the health status of the population served by the CHC. A study of longer duration, with well-defined health indicators applied to a sample of the population, would be required.

Moreover, this report does not address whether, as the result of the delivery of primary health care, the population/individuals have adopted improved lifestyle behaviours. Though the latter was a goal of the project, it became apparent that the time period for the Pilot precluded any study that would give a reliable measure of behaviour change.

**Maturity of the strategies** — “Rome wasn’t built in a day” and the same can be said of McAdam. Only within recent months have most of the pieces of the model been implemented. This has been mainly due to (i) more time required than initially envisaged to develop practice protocols, (ii) time required for members of the interdisciplinary team to develop an understanding of the philosophy of “shared practice” and confidence in its application, (iii) the absence early in the project of a coordinator with sufficient dedicated time for developmental activities, such as program development and (iv) the absence early on in the project of a marketing strategy in the catchment area to inform residents of the services, programs and clinics available at the Health Centre. Thus, measurement of certain aspects of the model—such as “shared practice”—may be happening too soon to detect a true change in expected outcomes.

**Data** — The utilization data used in the *McAdam CHC Interim Evaluation Report* were manually collected. This has posed a major problem in attempting to compare the utilization results from the earlier study with the present one. Since the completion of the earlier report, the *Meditech* automated computer system, used throughout Region 3 Hospital Corporation, has been installed at the CHC. Compared with manually collected data, information collected by *Meditech* is more precise. Data definitions are well defined and standardized, and information is more complete. This change in the method of collection of utilization data prevents accurate comparisons between the earlier data, and the later data. For this reason, in most instances, the utilization data analyzed and presented in this report cover only the time period of April 1, 1995 to March 31, 1996.

**Expenditures** — There were some limitations to the cost analysis that should be noted. Since actual data needed to calculate the 1995–96 per diems for admissions to CCH and DECH were not available, the cost of admissions in 1995–96 was based on 1994–95 per diems. Also, data on ER utilization at CCH and DECH by McAdam residents was unavailable and, therefore, omitted from the cost analysis. Since data were not available specifically for the McAdam area (the data that were available were an aggregation of Harvey and McAdam), the costs and services provided by EMH were omitted from the cost analysis. Finally, it should be noted that a number of initiatives were implemented by Region 3 Hospital Corporation that may be responsible for some of the cost savings occurring at McAdam. However, the cost analysis only reports the net change in expenditure and does not attempt to attribute the savings to the CHC or any particular initiative.

## PART 2.0 DESCRIPTION

### 2.1 The Pilot Site

McAdam, N.B. is a small community bordering on the State of Maine (USA). The nearest large urban centre is Fredericton, N.B., which is about 100 km away. It is also approximately 60 km from the next largest community, St. Stephen, N.B. The population in the McAdam village and its surrounding parish is relatively stable, with approximately 2300 residents recorded in both the 1986 and 1991 Census (3,4). In terms of population density, McAdam fits with the Statistics Canada definition of rural, which is 400 or fewer people living in one square kilometre. Most of the residents are unilingual, English speaking, and of Anglo-Saxon descent. From the 1991 Census information, approximately half of the residents, both male and female, are 40 years of age or older. Historically, the economic base for the area was provided by the railroad freight and passenger services, and the timber industry. In more recent times, the lumbering industry has declined, and coupled with the discontinuation of rail service, the village has been faced with economic challenges. Several industries are now located in the village and these provide some of its present economic base.

The community of McAdam has a history of volunteerism and self-sufficiency. The village takes pride in its past as a railroad town with a widely acclaimed national landmark—a fairytale castle that was once the CN train station—and in its community spirit. If one asks people whether they consider themselves impoverished by the economic downturn, the answer is apt to be a curt, “of course not.” For over a decade the village has had a biweekly newspaper written and published free-of-charge by the older youth of Scouts Canada, under the supervision of their leader, who is also the village mayor and the high school principal. Along with a community television channel, the newspaper is the vehicle by which most people are informed of community issues. Not surprisingly, the media have played a pivotal role in assisting the CHC in promoting its programs and services.

### 2.2 The Conceptual Model

The conceptual health service delivery model developed for the McAdam area is quintessentially that of *primary health care*. Primary health care reflects a philosophy promoting the wellness of the individual, family and community. Important to the understanding of the conceptual model are the definition of two frequently misused terms: *primary care* and *primary health care* (5,6). *Primary care* is a medical concept that is illness-oriented, which stresses diagnosis and treatment. It is service-provider and person-focused rather than community-focused, and has the attributes of support, rehabilitation and cure.

In contrast, *Primary health care* defines a broader view of health. It includes the supportive, rehabilitative and curative aspects of primary care; but, additionally, it includes a community health promotion and disease prevention component. The philosophy of primary health care was unveiled at the Alma Ata conference in Russia by the World Health Organization in 1978 under the title of *The Alma Ata Declaration* (7).



**Governance** — The appointed Board of Region 3 Hospital Corporation, with headquarters in Fredericton, is responsible for the operation of all hospital facilities and health centres within its geographical boundaries, including McAdam. The Board membership represents a ratio of 40% urban to 60% rural, with one Board member representing the McAdam-Harvey area. Through the Board, citizens participate in the decision-making process that determines the use of dollars and the resources allocated for health care in the Region. In practice, the Board functions in place of the community boards that are associated with health centres in other provinces (8). At the present time, coordination of the project is delegated to a senior nursing manager who is accountable to the Board through the CEO of the Corporation.

**The Modules** — The CHC delivery model is conceptualized around the two fundamental components characterizing *primary health care*, namely, Health Promotion/Illness Prevention and Support/Rehabilitation/Curative; and under these two components, the following three modules were envisaged, **Figure 1**:

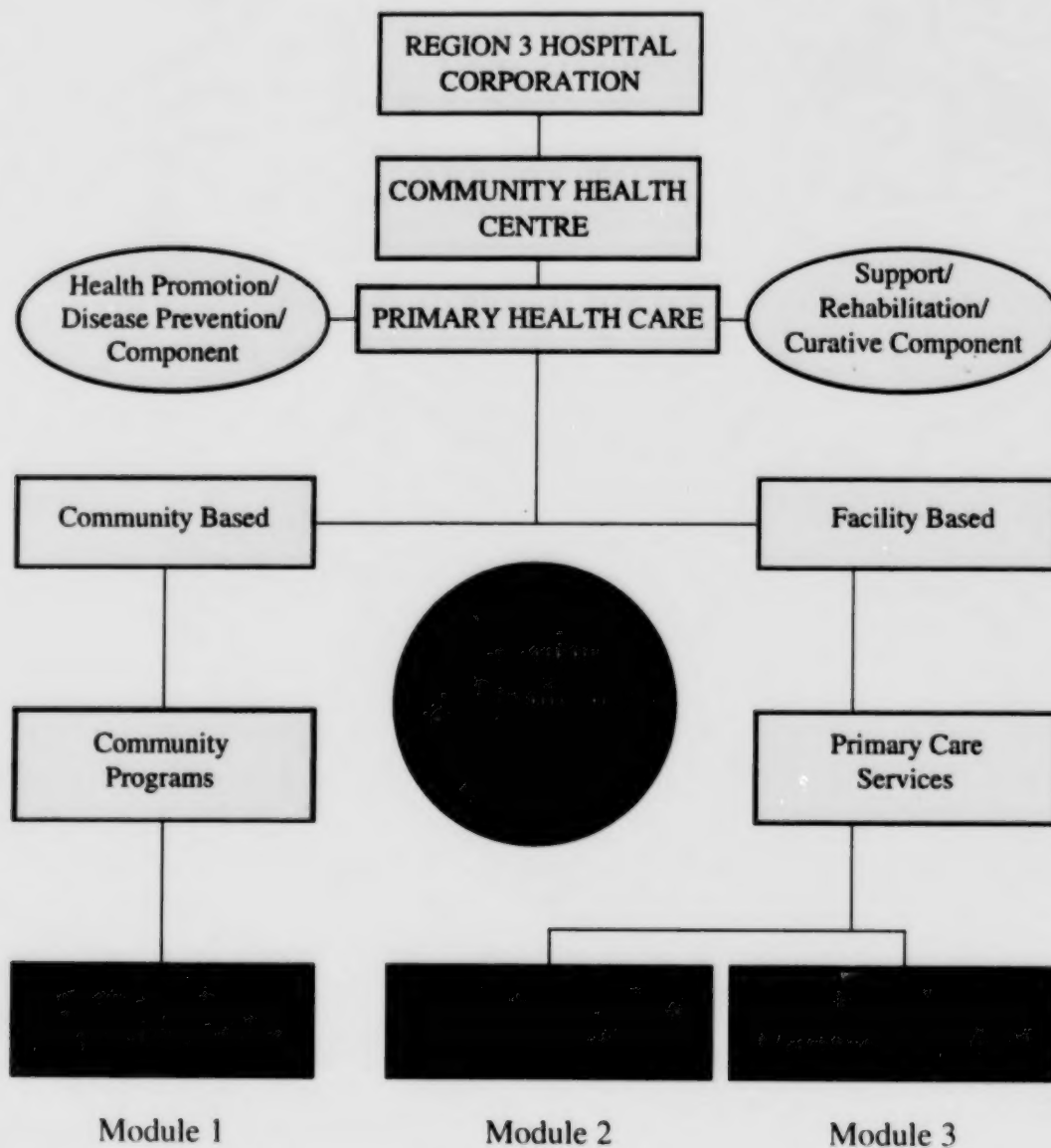
**Module #1** is the Health Promotion/ Illness Prevention component. The major strategy in this module is the planning and coordinating of activities judged to contribute to the health and social well-being of the residents in the area. As originally conceived, those activities were to address the needs identified through a Needs Assessment study (9), which was completed in the community just before the official start-up of the project. The vehicle for implementing this strategy was to be an Interdisciplinary Action Committee comprised of the professional staff at the CHC, representatives from health and social agencies working in the community, and community representatives. Leadership for these activities is provided by staff at the CHC. Note: The name of the Interdisciplinary Action Committee is probably more appropriately defined as an Intersectorial Action Committee.

**Module #2** is the Supportive/Rehabilitative/Curative component. Under this module, primary care is delivered using an *interdisciplinary approach* described as "shared practice." "Shared practice" is a philosophy which is characterized by members of a health care team of professionals working together in a collaborative and cooperative manner, each recognizing the competencies of other members of the team and operating in an atmosphere of mutual trust. Other synonyms used to describe this approach are "collaborative practice" (10,11) and "shared care" (5). Under this mode of service delivery, the health care provider refers the client to the most appropriate member of the team for delivering service. In the McAdam model, the "shared practice" team consists of a "shared practice" nurse, a physiotherapist, a dietician, a pharmacist and the physicians. Depending on the needs of the client, the most appropriate member of the team functions as the case manager. The "shared practice" model is illustrated in **Figure 2**.

For "shared practice" to occur, "enabling" activities are required. These include the following: changes in physician remuneration, co-location of services, centralized registration and integrated charting, and, importantly, the development of practice guidelines/protocols. These activities/mechanisms are described in **Section 2.3**.

**Figure 1. Conceptual Model of the McAdam CHC**

*(Adapted from Progress Report to  
Region 3 Hospital Corporation, 1994)*



**Module #3** also belongs in the Support/Rehabilitation/Curative component. Under this module, primary care is provided through the (i) emergency service and (ii) the utilization of the observation beds. Four observation beds are available, one of which can be used for someone who requires a greater degree of privacy, as might arise with a client needing palliative care. It was originally intended that the length of stay (LOS) in the observation beds would be limited to a maximum of 24 hours, that being the time to stabilize the client, arrange for home support services (e.g., EMH, SEP), or transfer to a larger facility.

The emergency service was planned, taking into account the realities of rural communities and the distances people needed to travel, especially in winter conditions, to access emergency care in larger centres. The presence of "high-risk for accident" -type industries in the area also highlighted the requirement for this service.

The "shared practice" philosophy is a part of this Module, as well. In the emergency service delivery, based on approved protocols, nurses can assess, treat and discharge clients without first having to obtain a doctor's authorization. In these cases, there is a 24 hour follow-up with the patient after discharge. Protocols have been developed to guide this practice. These are described in **Section 2.3**. Because activities under the protocols could place nurses in violation of the acts which govern and regulate hospitals and professional practice, the nurses were indemnified by Ministerial letter for the duration of this project against violations of the *Hospital Services Act* and the *Hospital Act*.

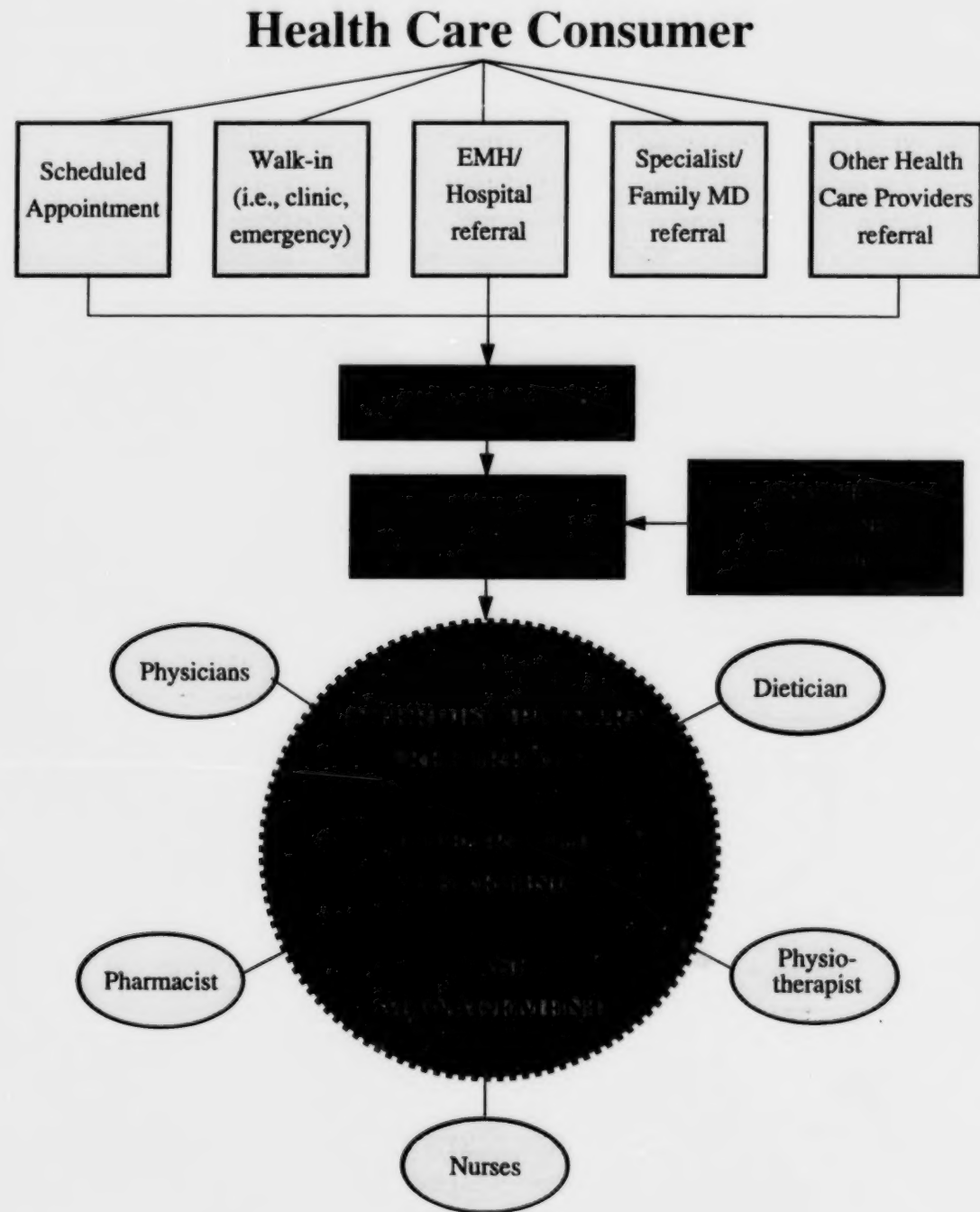
### **2.3 Enabling Mechanisms for "Shared Practice"**

A number of activities had to occur to allow the conceptual model to operate as planned. Foremost among these were changes in the method of physician remuneration, co-location of the services, changes to charting methods for patient records and, of primary importance, the development of practice protocols/guidelines to guide "shared practice."

**Physician remuneration** — Two physicians are involved with the McAdam project: one, the former physician of long standing in the community, and the other a physician with office appointments one day a week on site, and sharing after hours calls for the emergency service. For the purposes of this pilot project, both physicians agreed to be remunerated according to an agreed salary in place of their former fee-for-service (FFS). This alternative payment method was agreed to by the physicians and the DHCS, after consultation with the NB Medical Society, the bargaining agent for the physicians. Included in the agreement was a requirement that the physicians continue to submit "claim forms" for clients to the Medicare Division of the Department so that the costs of medical services could be tracked for evaluation and planning purposes. The evaluation of payment systems versus care is not within the mandate of the present evaluation study. [Note: For readers interested in remuneration schemes and their relationship to care provided by physicians in community health centres, a brief review is offered by Pong et al. (12).]

**Co-location of services** — To support the "shared practice" philosophy, interior renovations were required in the physical lay-out of the former MMH. When the hospital existed, the physician's office was located in the extreme lower end of the building, far removed from the main entrance

Figure 2. McAdam CHC Model of Shared Practise



to the hospital. In order to make the physician a more visible part of the team, his office and those of the other members of the team, were moved to a central location, i.e., *co-located*, in close proximity to the observation/emergency beds and the main entrance/registration/nursing station.

In addition to the above change, former public entrances were closed and one public entrance to the CHC was created. This one entry facilitated the *centralized registration* of clients seeking services at the Centre. Moreover, it would funnel the client to the first contact with a service provider, which in turn would start a chain of events beginning with triage by the nurse, and followed by referral to the appropriate service provider.

Finally, *co-location* was meant to apply to other health service providers in the catchment area. In an early planning document (13), it was stated that the "facility will be the focal point for most, if not all, health and related community and in-home support services in the area, with emphasis on the prevention of unnecessary or premature institutionalization." Accordingly, it was anticipated that other health service providers such as PH, MHC, EMH, etc. would co-locate offices and/or clinics to the Centre to work in partnership with the Centre's staff as part of a "multidisciplinary" team.

**Integration of patient records** — Common charting has been reported as an important enabling mechanism for the collaborative modes of practice (10,11). This means that for a given client, all progress notes on that client are written on the same chart, irrespective of the profession of service provider. This feature, like the common entrance above, promotes efficiencies in that it opens the door to effective communication and referral between service providers. In the case of McAdam, integrated charting of client information is viewed as enabling "shared practice," but also as enabling the further activity of case management.

**Practice protocols/guidelines** — To support the philosophy of "shared practice," practice protocols/guidelines were developed which were to delineate the interdisciplinary relationship between members of the CHC service team when faced with specific, well-defined medical conditions. They were, in essence, to guide decision-making so that through the referral process, the client would be directed to the appropriate service provider. Guidelines as a means of formalizing practice have been reported in other, similar, collaborative models (5, 14).

Two practice areas were identified as providing opportunities for "shared practice," namely the emergency service and clinical visits. Specific to the emergency service, six protocols were adopted under which nurses could assess, treat and discharge a client without obtaining a physician's authorization. The conditions selected for protocols were as follows: anaphylaxis, epistaxis, minor burns, minor sprains/strains, minor lacerations and tetanus toxoid prophylaxis. Additionally, three protocols were adopted for the care of clinic patients presenting with diabetes, hypertension and pediatric asthma.

All protocols were developed by the onsite service team, and then reviewed and approved by the Region 3 Medical Advisory Committee (MAC) before implementation at the McAdam CHC. Diabetes and hypertension protocols were developed first, followed by the case management guidelines, and more recently, the pediatric asthma protocol.



Clinic protocols/guidelines and emergency service protocols are found in **Appendix E**.

## **2.4 Unique Features of the Model**

Though not as radically different as, for example, the nursing stations in Northern Ontario where a physician may not be present in a 150 km radius and all immediate services including diagnostic and treatment are provided by a nurse or nurses (R.W. Pong, personal communication), the McAdam CHC does represent a radical departure from traditional practice in New Brunswick. It is similar to other community health centres in that it has a close relationship to the area that it serves, including linkages with other community services, uses the multidisciplinary approach to medical service delivery, provides educational services that stress prevention and health promotion, provides ambulatory service and remunerates physician services by salary rather than the tradition fee-for-service (15). There are some features, which to a greater or lesser extent, seem to set it apart from those CHC's that operate in inner cities and, at the other end of the continuum, those that operate in the far north of Canada. These features are as follows:

**Mix of services** — Church et al. (8), in describing the organizational models of community-based service delivery models in Canada, noted that "there is a paucity of material examining which individual services function most effectively and efficiently when integrated or coordinated." Church quotes Robichaud and Quiviger (1991) in stating that "in seven out of ten provinces, the majority of services offered from local community health and social service centres were primarily social as opposed to medical." He further quotes from the study by Bozzini (16) who, in his 1988 study of Local Community Service Centres (CLSCs) in Quebec, noted that while 73% of centres offered primary medical care, a greater number (98%) were providing, for a large part of their services, social services.

In contrast, the McAdam model is unique in that it provides the mechanisms for achieving a balance between primary care and community-based programming. Coordination of health and social services programming occurs as a result of the intersectorial planning between all providers of health and social services and the community, through the mechanism that is in place, namely the Interdisciplinary Action Committee. This Committee of community health care providers (e.g., public health, EMH, mental health, FCSS, Outreach, etc.), professional staff at the Centre and community service providers (e.g., clergy, RCMP, community recreation leader, elected representative from the village council, etc.) meet monthly to discuss community needs and assist in the planning of identified programs/activities. The non-health care members of this committee are especially important as they bring to the discussions their knowledge of the community and surrounding area. Their presence in the decision-making process, determining community programming, provides the avenue whereby the community has a say in what is decided.

**Expanded role of the nurse** — The role of the nurse in this model is not to replace the physician, nor is the nurse's role expanding beyond standards of practice of the profession. What is occurring is that nurses are given an opportunity to expand their role within their standards of practice, using the full extent of their knowledge, skills and training. Under the McAdam model, increased decision-making for the nurse is formalized by the protocols, and begins with the triage function, as shown earlier in **Figure 2**.

**Emergency service** — A review of selected literature on operational models of community health centres (7,8,16,17) suggests that an emergency service of the type found in McAdam is not a common feature. Health service delivery in rural settings is hampered by low density population that affects availability of transportation (18), and by other factors that affect quality of care such as accessibility to services. In McAdam, an aging population, a lumber industry and a significant distance from an acute care hospital, all suggest a need for this type of health care delivery.

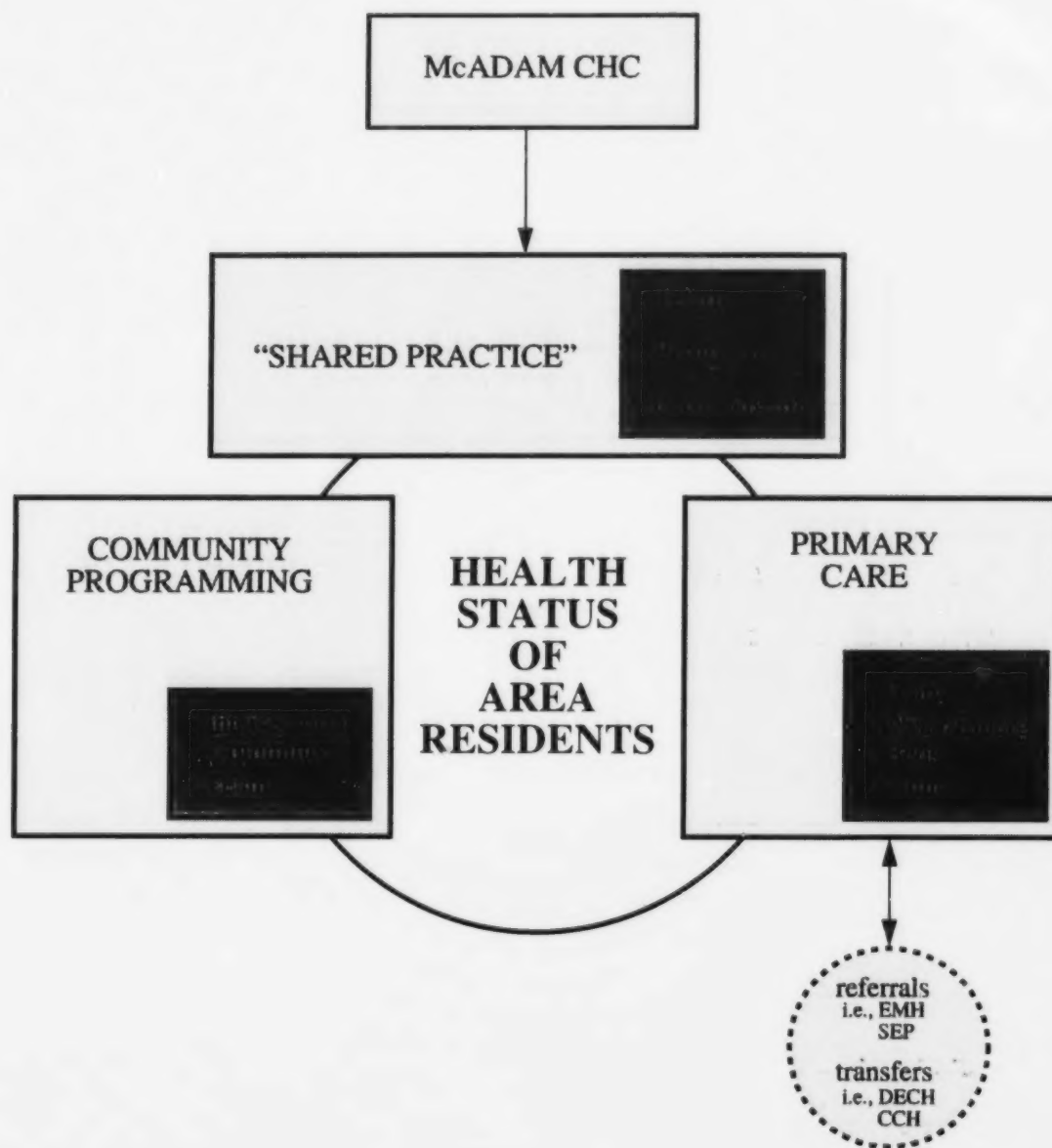
## 2.5 The Model in Operation

The working model for the McAdam project is illustrated in **Figure 3**. Clearly, all components of primary care and community wellness activities are “webbed” together by the “shared practice” team, who function in both types of service delivery — clinic and community. Depending on the type and frequency of complaints treated under the primary care component, clinics are arranged, either at the Centre or in the community to provide treatment, monitoring/screening and education. Through the Interdisciplinary (Intersectorial) Community Action Committee, made up of community representatives and health/social care providers, the team gains knowledge about the health needs of the areas. Thus, the linear model of three modules shown in **Figure 1** is, in reality, an interconnected series of strategies which together provide the infrastructure for supporting the health initiatives in the catchment area.

## 2.6 Staffing of the CHC

The McAdam CHC is open for medical appointments eight hours per day, five days per week. There is a 24-hour emergency service, with nurse and physician coverage; a nurse is on site 24 hours a day, with a physician on site for 8 hours and on-call for the remaining hours. Medical staff consists of one full-time physician (1 FTE), and a part time physician (0.2 FTE) who alternate office hours and emergency calls. The physician holds office hours two evenings per week.

The composition of staff positions, excluding the physicians, is shown in **Table 1**. There are at present 13.6 FTEs distributed among 18 employees. This represents a reduction of 6.6 FTEs from the hospital facility. These reductions have followed the bed closures and, consequently, the reduced demand for both nursing care and non-medical services, such as food preparation and housekeeping services. Although not an employee of the Centre, the pharmacist is part of the “shared practice” team and offers services from the village pharmacy.

*Figure 3. The Working Model for the McAdam CHC*

\* Interdisciplinary Action Committee

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**Table 1: McAdam CHC Non-Physician Staff Units\* (FTE†)**

<b>Position</b>	<b>FTEs 1992/93</b>	<b>FTEs 1994 to present</b>	<b>FTEs Net Change</b>
<b>Nursing Totals</b>	14.3	9.0	- 5.3
Director of Nursing		0.2	
RN 5		1.0	
RN 4		1.0	
RN 2		6.8	
<b>Physiotherapist 3</b>	0.4	0.4	0.0
<b>Dietary Totals</b>	2.5	0.2	- 1.4
Dietitian		0.2	
<b>Maintenance Totals</b>	0.8	1.0	0.2
Maintenance Worker 2		0.5	
Maintenance worker 1		0.5	
<b>Housekeeping Total</b>	2.2	0.7	- 1.5
<b>General Administration Total</b>	0.9	2.3	1.4
Clerk 2		0.6	
Clerk Typist 2		0.4	
Clerk Typist 1		1.3	
<b>TOTAL</b>	<b>21.1</b>	<b>13.6</b>	<b>- 6.6</b>

\* Source: McAdam CHC

† FTE = Full Time Equivalent





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\* Source: McAdam CHC

† FTE = Full Time Equivalent

## PART 3.0 DATA COLLECTION & ANALYSIS METHODOLOGY

Both quantitative and qualitative data have been gathered and integrated in order to answer the evaluation questions. Though quantitative data are often viewed as ideal, the structured nature of such data often prevents the uncovering of unanticipated and important side effects that occur in programs. This is especially true of multidimensional programs where services are varied, yet integrated (19), such as is found with the McAdam project. There is a sizeable body of literature that now supports use of qualitatively-derived information, especially as it is used to further the understanding of quantitative results (19,20).

### 3.1 Utilization data (non-expenditure)

The *Meditech* system in the Region 3 Hospital Corporation, the *Medicare* data base, and data collected manually from the CHC and CCH were the primary sources that were used to supply utilization data.

### 3.2 Emergency Department Utilization Survey

In the *McAdam CHC Interim Evaluation Report* of May, 1995, it was discovered that McAdam area residents were continuing to utilize the emergency departments at neighboring hospitals for conditions that could be treated through the CHC emergency service and at less cost to the system. To determine why this type of utilization was occurring, a three month study was conducted at the ER in the Charlotte County Hospital (CCH) in St. Stephen, and for two months at the Dr. Everett Chalmers Hospital (DECH) in Fredericton and at the Oromocto Public Hospital (OPH) in Oromocto. Clients from the McAdam catchment area were identified by means of a postal code prompt on computer entry at all emergency departments. At that time, the resident was asked why they chose to use this particular ER rather than going to the McAdam facility. Answers were coded according to category, and compared across facilities.

### 3.3 Chart Audit

Several methods were used to assess the extent of implementation of "shared practice." The most objective of these was a quantitative review of a randomized selection of client charts which fell under the explicit diagnostic categories of *uncomplicated essential hypertension* and *diabetes*. Four audit tools were developed and pre-tested for this assessment. The four tools reflected the practices identified and expected in the current approved protocols as described in **Section 2.3**. In particular, they identified the types of referral, the referring agent, and the subsequent follow-up activity. Under the Uncomplicated Essential Hypertension Registry, the two audit tools were for newly diagnosed/lifestyle and for maintenance/drug, where lifestyle and drug therapy designations referred to the type of management prescribed for the particular condition. Similarly, two audit tools were developed for the Diabetic Registry, namely newly identified and maintenance.

The number of items (questions) per tool ranged from seven to thirteen, depending on the requirements identified in the protocols. If for example, initial laboratory studies were completed before the visit to the physician, a score of 2 was assigned. If no preliminary work was done, then a zero was recorded. Each item was weighted to reflect the degree of importance that the activity represented. The scores were tallied for each chart and described statistically by a mean and

variance. A *Student's t Test for Independent Groups* was completed to determine if there was a difference between protocol compliance under one type of condition versus the other.

Similar use of chart audits employing explicit process criteria has been reported elsewhere as being reliable tools for measuring quality of care (21,22). In the present study, however, it is important to note that *the audit was not intended to measure quality, but instead it was to determine whether the protocols were being followed*, which would allow a deduction as to whether a collaborative-type of practice was occurring.

To complete the audit, forty (40) client charts were randomly drawn (with replacement) from each of the two major diagnostic categories, for a total of 80 charts. The charts were strictly those of clients seen during the time period of April 1, 1995 to March 31, 1996. Of the forty drawn in each category, the first thirty (30) "complete" charts were assessed. "Complete" meant that, in the opinion of the auditors, upon initial examination, most information seemed to be present.

Two independent consultants representing the fields of medicine and nursing then reviewed the charts and at that time determined which of the audit tools was appropriate for each chart. Each chart was assessed separately by each auditor, and each item scored and summed to give a total score. Differences in scoring between auditors were resolved by discussion between the two auditors. The audit tools are found in **Appendix F**.

### 3.4 Case Exemplars

Examples of case accounts illustrating the day-to-day workings of "shared practice" were solicited from the "shared practice" staff at the Health Centre. These accounts were captured on tape and transcribed verbatim. The accounts/exemplars were then edited to remove identifying information, and sent back to the CHC where staff were asked to read "blindly" in an attempt to identify the clients in question. The accounts underwent further editing to improve anonymity. Each account was re-checked to ensure accuracy in the presentation of critical information before incorporation into the evaluation report.

### 3.5 Community Programming

Four sources of information were used to explore the extent of community-based programming, the types of programs offered, the planning, delivery, level of uptake by the community and effects on staff. These sources were as follows:

- The Minutes of the Interdisciplinary Action Committee
- The Clinical Nurse Specialist (CNS)
- Focus groups
- Surveys conducted by the staff as part of programming activities

Specific to the program surveys, these were designed and administered by program organizers to assess teaching effectiveness and to gauge the level of success in meeting the needs of the program

participants. Survey results were attached to course summaries, and used as a source of supporting data for this report.

### **3.6 Key Informant and Community Consultations**

In the present evaluation study, the level of public acceptance of the CHC and the degree of success regarding perceived quality of the service provided were gauged through person-to-person interviews with key informants, and through focus group consultations. Focus groups are widely acknowledged as a means for probing participants' views, and hearing them "speak in their own words" (23). In the McAdam exercise, depending on the person(s) being interviewed, questions were structured to elicit information in key subject areas. Person-to-person interviews were held with the "shared practice" team of the two doctors, nursing managers and the dietician; and with the mayor of McAdam. Group consultations were used with the Interdisciplinary Action Committee, the Community Consultation Group and with the Public. With the exception of the Public, all groups were invited by letters sent from the evaluators. Public input was solicited through an advertisement placed, on two occasions, in the local newspaper and entitled, "Its Time For Our Check-Up." Citizens interested in participating were asked to telephone the Centre, at which time they were given the choice to select either the Public focus group, or to be contacted by telephone later in a separate survey. Samples of invitations to the participants are found in **Appendix G**. The consultant's report is found in **Appendix H**.

All interviews and focus group exercises were conducted by a facilitator who was not directly involved with the project and who was experienced with this form of data collection. Before commencement, the participants were assured that their responses would be aggregated to ensure anonymity. All sessions were recorded on tape and on computer, using the *WordPerfect 6.1* word processing programming. A content analysis was performed on the discussions and ideas were classified into categories of main ideas based on an *a priori* list of themes that included (i) knowledge of the services, (ii) utilization of the service, (iii) satisfaction, (iv) perceived quality, (v) perception of strengths and weaknesses; and in the case of the individual health professionals, (vi) the functioning of the "shared practice" team. Transcripts of the tapes were reviewed for inter-rater reliability.

### **3.7 Telephone Survey**

Citizens who opted for a private telephone interview were contacted by a nurse consultant contracted for this activity, who was familiar with the delivery of rural health care through previous supervisory experience with the Extra Mural Hospital. The same questions asked of the focus group participants were asked of the telephone interviewees, and then tabulated. The report is found in **Appendix I**.

### **3.8 Consultation With Other Health Care Providers**

The EMH and PH were consulted via face-to-face interview to determine the extent of their working relationship with the CHC. This activity was undertaken by an external consultant. The report is found in **Appendix J**.

### 3.9 Expenditures

Financial data for cost analysis were derived from the following data sources within the Department: Financial Services Division, Public Health/Medical Consultants, and the Hospital Services Division. Outside of the Department, data were provided by McAdam Ambulance Service, Region 2 Hospital Corporation, and Region 3 Hospital Corporation.



## PART 4.0 FINDINGS

### 4.1 Evolution of the Model

The CHC in McAdam is an evolving model of delivery of primary health care. Compared with what was envisaged three years ago, it has matured and developed to the point where its potential as a prototype for similar communities in New Brunswick is evident, both to health care planners and project directors alike. To some extent, this awareness has been heightened by the national exposure given the project when in 1995 it was selected as one of 19 community-based projects across Canada to be visited by a special committee of researchers preparing a report for the Federal, Provincial, and Territorial Deputy Ministers of Health.

Specific to the operation of the model, changes have occurred as a natural consequence of identifying efficiencies, and with increasing knowledge by the staff of ways to function within this new paradigm. Not surprisingly, there have been some unforeseen challenges, and some changes made in order to achieve functionality of the model. A number of these challenges and changes are recorded in **Table 2**, and several merit comment.

One of the challenges in achieving functionality is related to the development of the practice protocols. For the first year of the McAdam project, Health Management Services (HMS), an administrative arm of the Corporation, oversaw start-up activities. As part of their mandate, practice protocols for the clinic practice were to be developed. Implementing the project was not the only activity in Region 3 for which HMS was responsible, however. Consequently, an unavoidable but significant delay occurred in protocol development. This particularly concerned the joint Region 3/Government Steering Committee (record of Minutes of Meetings) as the protocols were meant to guide practice, and without them "shared practice" could not be guaranteed to occur. At the time of the release of the *McAdam CHC Interim Evaluation Report*, almost a year into the project, two of the protocols had just been put in place; and indeed, results verified by an audit of the physicians' daily log book, confirmed that "shared practice" was not yet occurring. To overcome these difficulties, the responsibility for the project was transferred to a senior nurse manager from the Dr. Everett Chalmers Hospital, with direct reporting to the CEO of the Region. This occurred in May, 1995.

About the same time that a project coordinator was assigned, the Region hired a clinical nurse specialist (CNS) at an RN5 level to work with the nursing staff of the former hospital in re-aligning their roles from that of a strictly medical model of primary care, to that of primary health care. A major part of her duties was to assist the staff and the Interdisciplinary Action Committee in identifying, developing, providing, and coordinating community health programs and clinics. The dedication of these new resources to the project, i.e., a coordinator and a community nurse resulted in significant strides in changing the type of health care delivery from a hospital to community health centre.

As pointed out in the **Introduction**, the former hospital was attached to a nursing home, and nurses rotated between the two facilities. When the hospital site became a health centre, this practice continued. However, over time, rotation between the two facilities became problematic as nurses



**Table 2: McAdam Community Health Center Evolution of the Model \***

Year 1	Year 2
<ul style="list-style-type: none"> <li>Only Nurse Manager involved in "shared practice."</li> </ul>	<ul style="list-style-type: none"> <li>All nurses working in the Health Center are involved in "shared practice."</li> </ul>
<ul style="list-style-type: none"> <li>Nursing staff rotating between CHC and Nursing Home</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated nursing staff for the CHC.</li> </ul>
<ul style="list-style-type: none"> <li>Initial intensive education of nurses carried out when CHC first established.</li> </ul>	<ul style="list-style-type: none"> <li>Education of staff has proceeded by careful matching of the education with the needs of staff, e.g., the nurse involved in the Asthma program attended a seminar "Update on Asthma." A workshop on program planning was given to all staff. The dietitian will attend a conference on dietetics and diabetes.</li> </ul>
<ul style="list-style-type: none"> <li>Few community programs are developed; existing programs not integrated into the CHC concept.</li> </ul>	<ul style="list-style-type: none"> <li>Community programs developed to meet needs of the community; integrated with established practice protocols/clinical guidelines.</li> </ul>
<ul style="list-style-type: none"> <li>Limited marketing of the CHC &amp; its programs/activities.</li> </ul>	<ul style="list-style-type: none"> <li>Marketing via Fortnighter and Cable 10 television. Articles about CHC in River Valley News, Info and the Parasol. CHC Staff in partnership with a family in the community, EMH, Region 3 Corporation &amp; Communications N.B. produce a video series on family care giving.</li> </ul>
<ul style="list-style-type: none"> <li>Community liaison only through the Interdisciplinary Action Committee and the Community Consultation Group.</li> </ul>	<ul style="list-style-type: none"> <li>Community Nurse Development Officer/Clinical Nurse Specialist hired and involved in the Marketing of the CHC in the community.</li> </ul>
<ul style="list-style-type: none"> <li>Practice protocols developed for E.R. utilized but constitute a very small percentage of total E.R. visits.</li> </ul>	<ul style="list-style-type: none"> <li>Additional protocols developed and pending approved for use in the ER. Staff education on use of the protocols begins.</li> </ul>
<ul style="list-style-type: none"> <li>"Shared practice" concept not operationalized. Limited evidence of staff support. Limited evidence of "knowing how" to carry out the philosophy.</li> </ul>	<ul style="list-style-type: none"> <li>Anecdotal evidence from members of the team confirm increased confidence.</li> <li>Evidence that health professionals are functioning as an interdisciplinary team. Dietitian now involved with diabetic program and healthy weight program; pharmacist &amp; respiratory therapist involved with the Asthma program.</li> </ul>
<ul style="list-style-type: none"> <li>Computerization just begun. Data input inaccurate and inconsistent.</li> </ul>	<ul style="list-style-type: none"> <li>Greater familiarity with computers. More precise data definitions and standards, giving more accurate statistics.</li> </ul>

\* Source: McAdam CHC

were constantly faced with switching from one model of nursing care delivery, to another. For some of the nursing staff, this was stressful. To resolve the situation, nurses asked to be given the

choice of facility in which they preferred to work. Based on their preferences, they are now dedicated either to the Centre or to the Nursing Home. This has been in effect since February, 1996, and will be re-assessed at the end of the summer, 1996.

An improvement that has resulted from dedication of nursing staff is the efficiency with which case management activities are undertaken. Under the new working structure, nurses say that they are now better able to track and manage a case plan for clients who require follow-up monitoring, screening and/or testing. In effect, the dedication of nursing staff has enabled this formerly planned, but hitherto unexecuted, activity to become operational.

#### 4.2 Utilization of Primary Care Services (see Figure 1, Modules 2 and 3)

Most of the data on utilization were collected electronically from the *Meditech* automated computer system used throughout Region 3 Hospital Corporation. Data from Charlotte County Hospital (CCH) was recorded manually by the Hospital's Medical Records Unit and forwarded to DHCS. Although it was mentioned earlier in **Section 1.4**, it should be noted once again that utilization data from this report should not be directly compared with the utilization data reported in the *McAdam CHC Interim Evaluation Report*.

**Outpatients (clients)** — The profile of the McAdam CHC clients is shown in **Table 3**. In 1995/96, there were 9514 client visits or an average of 793 per month. Most of the visits were office visits to the physician, visits to the nurse for follow-up treatment, visits for laboratory tests, and visits to the blood pressure clinics. **Figure 4** does not appear to show any strong degree of seasonality associated with the visits. May, June, October, and February were the busiest months in terms of visits, while visits in December were below average, likely due to reduced services during the holiday season.

Just over three quarters (77%) of the 1478 clients that used the CHC over the year were from the McAdam catchment area. The other clients using outpatient services were most likely from neighboring Harvey. It should be noted that the 0.2 FTE physician at the CHC, Dr. Olmstead, may have seen some of his clients from Harvey while on duty at the CHC in McAdam. Other possible catchment areas include St. Stephen and Vanceboro, Maine.

Examining the profile of clients, there was a slightly higher percentage of females than males. The most frequent users were in the age groups of >64 years (27%) and 25–44 years (26%). Only 11% of the users were aged 15–24 years. Given the higher than Provincial average percentage of senior residents (23% for McAdam versus 12% for N.B.), it is not surprising that the highest percentage of users were senior residents. This is expected to continue in the future.

**"Shared practice" protocols** — Over a six-month period (October, 1995 – March, 1996), 225 clients made 1220 visits to the CHC for reasons relating to either hypertension or diabetes (**Table 4**). It should be stressed that the distribution of visits is highly skewed by a few clients making a high number of visits. For example, the average number of visits per diabetes client was 10.8 over the six month period, however, several diabetes clients made only one or two visits while, at the other extreme, a few made over 30 visits. Also, it should be noted that hypertension and

diabetes are often interrelated, and some clients are diagnosed with both conditions. These clients are only recorded according to the most prevalent disease and are not double counted.

**Table 3: McAdam CHC Outpatient (Client) Profile,  
April 1995 – March 1996 \***

Visits		
	#	%
<b>Total Visits</b>	<b>9514</b>	<b>100%</b>
Clients		
	#	%
<b>Total Clients</b>	<b>1478</b>	<b>100%</b>
Within catchment	1139	77%
Outside catchment	339	23%
Gender of Clients		
Males	667	45%
Females	811	55%
Age (years) of Clients		
<15	252	17%
15–24	163	11%
25–44	383	26%
45–64	289	20%
>64	391	27%

\* Data Source: Meditech

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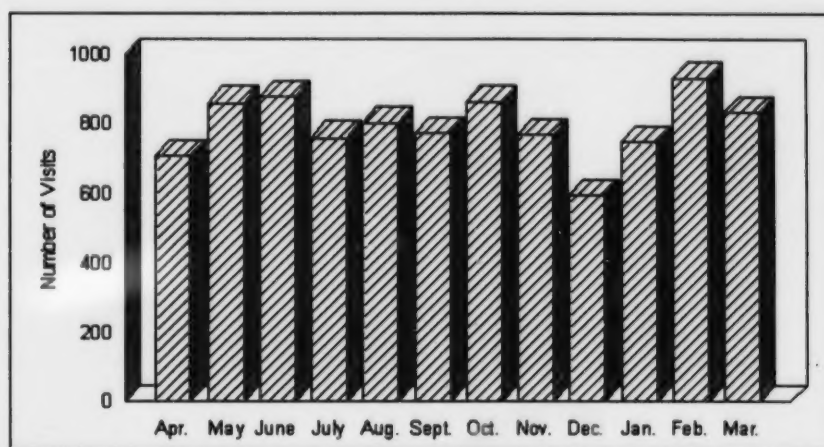
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**Figure 4. Monthly Outpatient Visits, 1995/96**

Data Source: Meditech

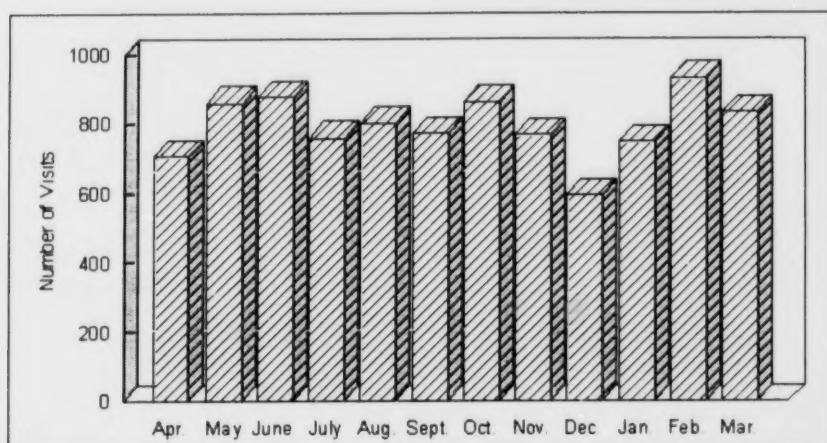
**Table 4: Visits for Hypertension and Diabetes, October 1995 – March 1996 \***

	Visits (6 months)									
	Clients				Physician				Nurse	
	N	%	Avg.		N	%	Avg.		N	%
Hypertension	164	251	44.6%	1.5	312	55.4%	1.9	563	100.0%	3.4
Diabetes	61	146	22.2%	2.4	511	77.8%	8.4	657	100.0%	10.8
<b>Total</b>	<b>225</b>	<b>397</b>	<b>32.5%</b>	<b>1.8</b>	<b>823</b>	<b>67.5%</b>	<b>3.7</b>	<b>1220</b>	<b>100.0%</b>	<b>5.4</b>

\* Data Source: McAdam CHC

Of the two diseases covered by the "shared practice" protocols, hypertension is the most common as 164 (50%) clients have this health condition, but it appears that the CHC is more heavily used by diabetes clients considering that 61 diabetes clients made 657 visits to the Centre. The difference in utilization may reflect the nature of the follow-ups. Many of the visits for hypertension and diabetes are for lab tests and monitoring, however, a hypertensive client would likely be instructed to remain in the facility for blood pressure monitoring, whereas a diabetes client would more likely be instructed to return for glucose monitoring before the consumption of meals throughout the day. Therefore, monitoring of a condition may show up as three visits for a diabetes client but only once for a client with hypertension.



**Figure 4. Monthly Outpatient Visits, 1995/96**

Data Source: Meditech

**Table 4: Visits for Hypertension and Diabetes, October 1995 – March 1996 \***

	Clients	Visits (6 months)								
		Physician			Nurse			Total		
		#	#	%	Avg.	#	%	Avg.	#	%
Hypertension	164	251	44.6%	1.5	312	55.4%	1.9	563	100.0%	3.4
Diabetes	61	146	22.2%	2.4	511	77.8%	8.4	657	100.0%	10.8
Total	225	397	32.5%	1.8	823	67.5%	3.7	1220	100.0%	5.4

\* Data Source: McAdam CHC

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From the high number of visits to the nurse, it appears that the nurse is playing a strong role in the treatment plan of the client. This is especially noticeable with diabetic clients as almost four fifths (78%) of the visits have been to the nurse.

Of the 225 clients, roughly a third (34%) made only one visit to the physician over the six month period. This strongly suggests that following an initial visit to the physician for a treatment plan, the client is followed-up by the "shared practice" nurse. This claim is also supported by the fact that physician visits have decreased significantly (see Section 4.2, Table 13A).

**Observation beds** — Table 5 categorizes the observation bed admissions over the 12-month period. Out of the 135 admissions, over half (53%) were categorized as symptoms, signs, and ill-defined conditions. This category typically includes health conditions such as chest pains, abdominal pains, shortness of breath, etc. The second highest percentage (13%) of admissions were for factors influencing health status and contact with health service. This category was mainly comprised of admissions for palliative reasons and treatment restarts.

**Table 5: CHC Observation Bed Admissions**  
**April 1995 – March 1996 \***

Diagnostic Category	#	%
Symptoms, Signs and Ill-defined Conditions	71	53%
Factors Influencing Health Status and Contact With Health Service	17	13%
Diseases of the Circulatory System	11	8%
Diseases of the Respiratory System	8	6%
Injury and Poisoning	7	5%
Diseases of the Digestive System	6	4%
Diseases of the Musculoskeletal System and Connective Tissue	5	4%
Diseases of the Skin and Subcutaneous Tissue	3	2%
Infectious and Parasitic Diseases	2	2%
Endocrine, Nutritional and Metabolic Diseases and Immunity Disorders	1	1%
Diseases of the Blood and Blood-Forming Organs	1	1%
Mental Disorders	1	1%
Unclassified	2	2%
<b>TOTAL</b>	<b>135</b>	<b>100%</b>

\* Source: Meditech

The intended use of the beds was for observation purposes only; the policy stated that the length of admission should be limited to 12 hours and not to exceed 48 hours. However, of the observation bed admissions, **Table 6** shows that one third exceeded the maximum length of stay of 48 hours, and 20% exceeded 72 hours. In the latter case, the extended stay was associated with palliation.

**Table 6: Length of Stay for CHC Observation Admissions  
April 1995 – March 1996 \***

Length of Stay (hrs.)	Total Admissions	Average Stay per Month	%
< 12 hrs.	29	2.4	21.4%
12–24 hrs.	24	2.0	17.8%
24–48 hrs.	38	3.2	28.2%
48–72 hrs.	17	1.4	12.6%
> 72hrs.	27	2.3	20.0%
<b>TOTAL</b>	<b>135</b>	<b>11.3</b>	<b>100.0%</b>

\* Source: Meditech

Looking at the departure disposition in **Table 7**, almost three quarters (73%) of the observation bed clients were discharged to their homes following their stay. This is likely facilitated by the provision of home support services by EMH and Public Health.

**Table 7: Departure Disposition of CHC Observation Admissions  
April 1995 – March 1996 \***

Disposition	Total	%
Home	99	73.3%
DECH	17	12.6%
Expired	8	5.9%
Nursing Home	6	4.4%
Other Hospital	3	2.2%
<b>TOTAL</b>	<b>133</b>	<b>100.0%</b>

\* Source: Meditech

**Emergency service utilization** — Table 8 shows visits to the McAdam CHC emergency service over the one-year period from April, 1995 to March, 1996. Emergency visits were classified as emergent, urgent, and non-urgent. Emergent visits (i.e., requiring immediate treatment) included clients experiencing shortness of breath, seizures, etc. Urgent visits (i.e., requiring treatment within one hour) included complaints of stomach pains, chest pains, nose bleeds, etc. Non-urgent visits (i.e., requiring treatment within a 24-hour period) typically included ear aches, back pain, removal of sutures, etc. On average, there were 79 visits per month. Over half of these (51.8%) were classified as non-urgent visits. From examining Figure 5, there does not appear to be any strong pattern of seasonality associated with the visits. The number of emergency visits is relatively low during February, perhaps because it is an idle time of the year for some seasonal workers who may work with dangerous equipment.

**Table 8: Emergency Visits to McAdam CHC  
April 1995 – March 1996 \***

Classification	Total	%	Average per Month
Emergent	84	8.9%	7.0
Urgent	286	30.3%	23.8
Non-urgent	489	51.8%	40.8
Not Coded	85	9.0%	7.1
<b>TOTAL</b>	<b>944</b>	<b>100.0%</b>	<b>78.7</b>

\* Source: Meditech

Table 9 shows that the vast majority (69.1%) of emergency clients were discharged to their homes following their visit. Roughly 13% were sent on to DECH, and only a few were sent on to another hospital. This information suggests that the McAdam emergency service was effective in treating and discharging most of its users.

The McAdam CHC Interim Evaluation Report reported a significant increase in ER visits by McAdam residents to two neighboring hospitals: CCH and DECH. CCH is roughly 60 km from the CHC and DECH is approximately 100 km away. It was, therefore, decided to continue monitoring ER visits to neighboring hospitals. Table 10 shows utilization of DECH and CCH emergency room (ER) visits by McAdam residents for the last three fiscal years; but, unfortunately, earlier data were not available. There appears to be a marked increase (54%) in utilization by McAdam residents at CCH from 1993/94 to 1994/95, but the increase was much smaller in 1995/96. This decline in the rate of increase suggests that people may be becoming more comfortable with the CHC in McAdam and what it has to offer.

The intended use of the beds was for observation purposes only; the policy stated that the length of admission should be limited to 12 hours and not to exceed 48 hours. However, of the observation bed admissions, **Table 6** shows that one third exceeded the maximum length of stay of 48 hours, and 20% exceeded 72 hours. In the latter case, the extended stay was associated with palliation.

**Table 6: Length of Stay for CHC Observation Admissions  
April 1995 – March 1996 \***

<b>Length of Stay (LOS)</b>	<b>Total Admissions</b>	<b>Average Stays per Month</b>	<b>%</b>
< 12 hrs.	29	2.4	21.4%
12–24 hrs.	24	2.0	17.8%
24–48 hrs.	38	3.2	28.2%
48–72 hrs.	17	1.4	12.6%
> 72hrs.	27	2.3	20.0%
<b>TOTAL</b>	<b>135</b>	<b>11.3</b>	<b>100.0%</b>

\* Source: Meditech

Looking at the departure disposition in **Table 7**, almost three quarters (73%) of the observation bed clients were discharged to their homes following their stay. This is likely facilitated by the provision of home support services by EMH and Public Health.

**Table 7: Departure Disposition of CHC Observation Admissions  
April 1995 – March 1996 \***

<b>Departure Disposition</b>	<b>#</b>	<b>%</b>
Home	99	73.3%
DECH	17	12.6%
Expired	8	5.9%
Nursing Home	6	4.4%
Other Hospital	3	2.2%
<b>TOTAL</b>	<b>133</b>	<b>100.0%</b>

\* Source: Meditech



**Emergency service utilization** — **Table 8** shows visits to the McAdam CHC emergency service over the one-year period from April, 1995 to March, 1996. Emergency visits were classified as emergent, urgent, and non-urgent. Emergent visits (i.e., requiring immediate treatment) included clients experiencing shortness of breath, seizures, etc. Urgent visits (i.e., requiring treatment within one hour) included complaints of stomach pains, chest pains, nose bleeds, etc. Non-urgent visits (i.e., requiring treatment within a 24-hour period) typically included ear aches, back pain, removal of sutures, etc. On average, there were 79 visits per month. Over half of these (51.8%) were classified as non-urgent visits. From examining **Figure 5**, there does not appear to be any strong pattern of seasonality associated with the visits. The number of emergency visits is relatively low during February, perhaps because it is an idle time of the year for some seasonal workers who may work with dangerous equipment.

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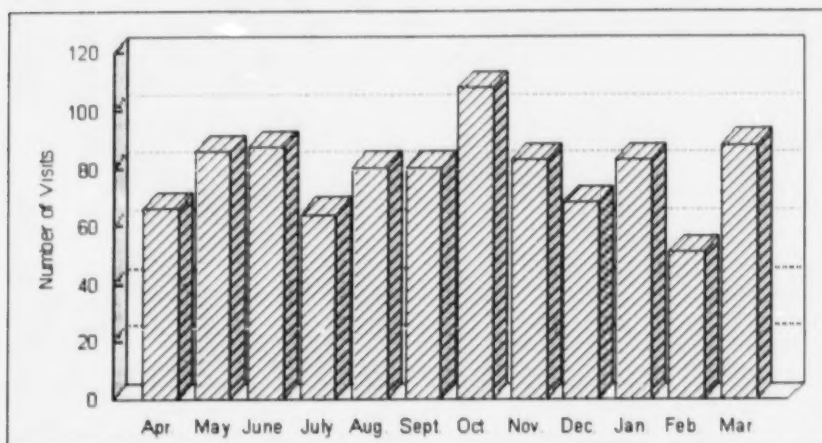
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**Table 9** shows that the vast majority (69.1%) of emergency clients were discharged to their homes following their visit. Roughly 13% were sent on to DECH, and only a few were sent on to another hospital. This information suggests that the McAdam emergency service was effective in treating and discharging most of its users.

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**Figure 5. Monthly Emergency Visits to CHC  
April 1995 – March 1996**



Source: Meditech

**Table 9: Emergency Visits to McAdam CHC by Departure Disposition  
April 1995 – March 1996 \***

Disposition	#	%
Home	654	69.1%
DECH	120	12.7%
Not Coded	99	10.5%
Observation Admission	35	3.7%
Other Hospital	16	1.7%
Harvey Hospital	11	1.2%
Dr's Office	7	0.7%
Expired	3	0.3%
Oromocto Hospital	1	0.1%
Saint John Regional	1	0.1%
<b>TOTAL</b>	<b>947</b>	<b>100.0%</b>

\* Source: Meditech

**Table 10: ER Visits by McAdam Residents to CCH and DECH \***

	CCH		DECH <sup>†</sup>	
	#	% Change	#	% Change
1993/94	126	-	208 <sup>‡</sup>	-
1994/95	194	54.0%	225	8.2%
1995/96	265	36.6%	243	8.0%

\* Data Source: DECH, Information Services; CCH, Medical Records

† Since the postal code is missing in roughly 10% of the total ER registrations at the DECH, the number of McAdam registrations was estimated to be 10% higher than what actually showed. These numbers were, therefore, adjusted upwards.

‡ 1993/94 only includes 11 months

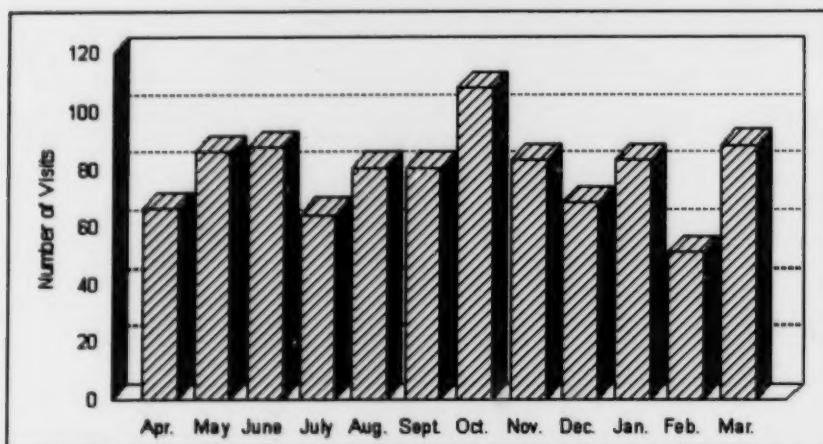
From the results of the *McAdam CHC Interim Evaluation Report*, the question was asked as to why McAdam residents were using other emergency services. To answer this question, the Emergency Department Utilization Survey (described in **Section 3.2**) was conducted. When examining the results of this survey, reported in **Table 11**, it becomes evident that many of the visits are for reasons that may not reflect negatively on the level and quality of service at the CHC. Over a third (33.8%) of the visits to the DECH were referred from McAdam for further assessment or treatment, an increase that might be expected since inpatient beds were no longer available. At CCH, a quarter (25.4%) of the emergency visits were because the family physician was located there. Visiting in St. Stephen or Fredericton was another frequently cited reason for using an ER other than the one in McAdam. Several respondents indicated that there was no physician in McAdam after hours. These may be cases where the client knew that their emergency was severe enough that they needed to receive attention from a physician and, knowing that a physician would only be on call in McAdam, chose to travel to either CCH or DECH where they knew there would be a physician in attendance.

Referred from McAdam and services not available in McAdam were related reasons offered for using the outside emergency service. Combined, these reasons represent 40% of the visits to the DECH. From examining the raw data, many of these visits were for X-rays and for obstetrics.

Unfortunately, in the final analysis, it was not possible to determine if changes occurred in the reasons for use of other emergency departments following implementation of the CHC pilot project. This is because pre-CHC data exploring reasons for selection of emergency departments by McAdam residents were not available.

***In-patient admissions to other facilities*** — The number of McAdam residents admitted to the two neighbouring hospitals, CCH and DECH, is shown in **Table 12**. One interesting observation from

**Figure 5. Monthly Emergency Visits to CHC  
April 1995 – March 1996**



Source: Meditech

**Table 9: Emergency Visits to McAdam CHC by Departure Disposition  
April 1995 – March 1996 \***

Departure Disposition	Number of Visits	Percentage
Home	654	69.1%
DECH	120	12.7%
Not Coded	99	10.5%
Observation Admission	35	3.7%
Other Hospital	16	1.7%
Harvey Hospital	11	1.2%
Dr's Office	7	0.7%
Expired	3	0.3%
Oromocto Hospital	1	0.1%
Saint John Regional	1	0.1%
<b>TOTAL</b>	<b>947</b>	<b>100.0%</b>

\* Source: Meditech

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† Since the postal code is missing in roughly 10% of the total ER registrations at the DECH, the number of McAdam registrations was estimated to be 10% higher than what actually showed. These numbers were, therefore, adjusted upwards.

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***In-patient admissions to other facilities*** — The number of McAdam residents admitted to the two neighbouring hospitals, CCH and DECH, is shown in **Table 12**. One interesting observation from

**Table 11: Reasons Given by McAdam Residents for Using Outside ERs  
(Emergency Department Utilization Survey) \***

	DECH (Jan. - Dec. 1996)		CCH (Jan. - Mar. 1996)	
	No.	%	No.	%
Family Dr. in Fredericton/St. Stephen	6	9.2%	18	25.4%
No Dr. in McAdam after hours	18	27.7%	6	8.5%
Not satisfied with service	1	1.5%	6	8.5%
Visiting in Fredericton/St. Stephen	4	6.2%	5	7.0%
Services not available in McAdam	4	6.2%	6	8.5%
Referred from McAdam	22	33.8%	5	7.0%
Seeking 2nd opinion	1	1.5%	0	0.0%
Emergency	0	0.0%	3	4.2%
Physiotherapy	0	0.0%	7	9.9%
Other	8	12.3%	6	8.5%
Unknown	1	1.5%	9	12.7%
<b>TOTAL</b>	<b>65</b>	<b>100.0%</b>	<b>71</b>	<b>100.0%</b>

\* Data Source: Meditech; CCH, Medical Records

the table is that there is a difference in the route of admission between the two hospitals. While three quarters of CCH in-patients from McAdam were admitted through the ER, the percentage is significantly smaller for DECH (50% in 1994/95 and 55% in 1995/96). A likely reason for this is that non-ER admissions are scheduled appointments for medical and/or surgical procedures, and since DECH is the Regional hospital for McAdam residents, it would be expected that it would receive more scheduled admissions. Another plausible explanation could be the different practice patterns of physicians. That is, some physicians may prefer to admit directly from ER.

There has been virtually no change in the number of admissions for the past two years. The average length of stay is roughly the same in both facilities. Comparing years, from 1994/95 to 1995/96, there was a marginal decline in average length of stay at CCH; meanwhile, a slight increase occurred at DECH. In 1994/95, the average length of stay for all DECH inpatients was the same as it was for McAdam inpatients at DECH, but in 1995/96, the average length of stay for McAdam inpatients was higher than the DECH average. At CCH, for both years, the average length of stay



**Table 12: McAdam Residents Admitted to DECH and CCH**  
**April 1994 – March 1996 \***

	1994/95				1995/96			
	CCH		DECH		CCH		DECH	
	#	%	#	%	#	%	#	%
Total	24	100.0%	201	100.0%	24	100.0%	207	100.0%
ER	18	75.0%	100	49.8%	17	70.8%	114	55.1%
Non-ER	6	25.0%	101	50.2%	67	29.2%	93	44.9%
Avg. Length of Stay								
• McAdam Residents	5.8		5.6		5.5		6.0	
• Hospital Average	6.1		5.6		5.9		5.6	
Gender	24	100.0%	201	100.0%	24	100.0%	207	100.0%
female	16	66.7%	125	62.2%	14	58.3%	104	50.2%
male	8	33.3%	76	37.8%	10	41.7%	103	49.8%
Departure Disposition	24	100.0%	201	100.0%	21	100.0%	207	100.0%
expired	1	4.2%	3	1.5%	3	12.5%	5	2.4%
home	21	87.5%	196	97.5%	16	66.7%	202	97.6%
transfer	2	8.3%	2	1.0%	2	8.3%	0	0.0%
nursing home	0	0.0%	0	0.0%	3	12.5%	0	0.0%

\* Data Source: DECH, Information Services; CCH, Medical Records

was lower for inpatients from McAdam than for all hospital inpatients. The table also shows that the vast majority of patients from both facilities were discharged to their homes.

**Physician utilization** — Table 13A shows that the number of services rendered to McAdam area residents (including services rendered by physicians working outside of the McAdam area) declined by 43.5% for GP services and increased 11.1% for specialist services from 1991/92 to 1995/96. It is noted once again that these data exclude physician ER services at the DECH and CCH that are remunerated on a sessional basis. Although the direction of the changes are the same, the magnitude of the changes differ markedly from the provincial totals. Comparing with Table 13B, the decline in GP services to McAdam residents was significantly higher than for N.B. residents in total (-43.5% versus -4.5%). Also, the increase in specialist services to McAdam



**Table 11: Reasons Given by McAdam Residents for Using Outside ERs  
(Emergency Department Utilization Survey) \***

Reason	DECH (Mar. – Apr. 1996)		CCH (Jan. – Mar. 1996)	
	#	%	#	%
Family Dr. in Fredericton/St. Stephen	6	9.2%	18	25.4%
No Dr. in McAdam after hours	18	27.7%	6	8.5%
Not satisfied with service	1	1.5%	6	8.5%
Visiting in Fredericton/St. Stephen	4	6.2%	5	7.0%
Services not available in McAdam	4	6.2%	6	8.5%
Referred from McAdam	22	33.8%	5	7.0%
Seeking 2nd opinion	1	1.5%	0	0.0%
Emergency	0	0.0%	3	4.2%
Physiotherapy	0	0.0%	7	9.9%
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Unknown	1	1.5%	9	12.7%
<b>TOTAL</b>	<b>65</b>	<b>100.0%</b>	<b>71</b>	<b>100.0%</b>

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There has been virtually no change in the number of admissions for the past two years. The average length of stay is roughly the same in both facilities. Comparing years, from 1994/95 to 1995/96, there was a marginal decline in average length of stay at CCH; meanwhile, a slight increase occurred at DECH. In 1994/95, the average length of stay for all DECH inpatients was the same as it was for McAdam inpatients at DECH, but in 1995/96, the average length of stay for McAdam inpatients was higher than the DECH average. At CCH, for both years, the average length of stay

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	CCH		DECH		CCH		DECH	
	#	%	#	%	#	%	#	%
Total	24	100.0%	201	100.0%	24	100.0%	207	100.0%
ER	18	75.0%	100	49.8%	17	70.8%	114	55.1%
Non-ER	6	25.0%	101	50.2%	67	29.2%	93	44.9%
Avg. Length of Stay								
• McAdam Residents	5.8		5.6		5.5		6.0	
• Hospital Average	6.1		5.6		5.9		5.6	
Gender	24	100.0%	201	100.0%	24	100.0%	207	100.0%
female	16	66.7%	125	62.2%	14	58.3%	104	50.2%
male	8	33.3%	76	37.8%	10	41.7%	103	49.8%
Departure Disposition	24	100.0%	201	100.0%	21	100.0%	207	100.0%
expired	1	4.2%	3	1.5%	3	12.5%	5	2.4%
home	21	87.5%	196	97.5%	16	66.7%	202	97.6%
transfer	2	8.3%	2	1.0%	2	8.3%	0	0.0%
nursing home	0	0.0%	0	0.0%	3	12.5%	0	0.0%

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was lower for inpatients from McAdam than for all hospital inpatients. The table also shows that the vast majority of patients from both facilities were discharged to their homes.

**Physician utilization** — **Table 13A** shows that the number of services rendered to McAdam area residents (including services rendered by physicians working outside of the McAdam area) declined by 43.5% for GP services and increased 11.1% for specialist services from 1991/92 to 1995/96. It is noted once again that these data exclude physician ER services at the DECH and CCH that are remunerated on a sessional basis. Although the direction of the changes are the same, the magnitude of the changes differ markedly from the provincial totals. Comparing with **Table 13B**, the decline in GP services to McAdam residents was significantly higher than for N.B. residents in total (-43.5% versus -4.5%). Also, the increase in specialist services to McAdam

residents (11.1%) was considerably more than the number to all N.B. residents (0.1%). It should be noted that the provincial figures only include physician services remunerated by FFS, whereas the McAdam figures include all physician services. The annual changes in physician services to McAdam residents are depicted graphically in **Figure 6**.

**Table 13A: Comparison of All Physician Services\* to McAdam Residents  
1991/92 – 1995/96 †**

Physician Services	'91/92	'92/93	'93/94	'94/95	'95/96	Difference 95/96 -91/92	% Change 95/96 -91/92	Difference '95/96 - '93/94	% Change '95/96 - '93/94
GP	15,139	12,863	9,868	9,358	8,554	-6,585	-43.5%	-1314	-13.3%
Specialist	4,116	4,411	4,238	4,101	4,574	458	11.1%	336	7.9%
<b>TOTAL</b>	<b>19,225</b>	<b>17,274</b>	<b>14,106</b>	<b>13,459</b>	<b>13,128</b>	<b>-6,097</b>	<b>-31.7%</b>	<b>-978</b>	<b>-6.9%</b>

\* Services are all procedures billed to Medicare

† Data Source: Medicare

**Table 13B: Comparison of FFS Physician Services to N.B. Residents  
1991/92 – 1995/96 \***

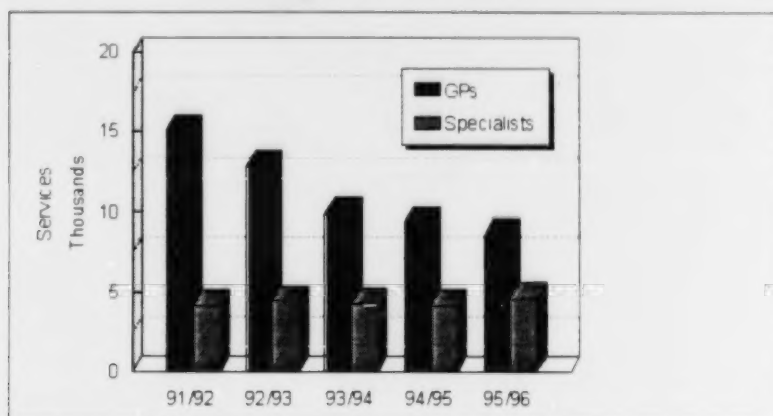
Physician Services	91/92	92/93	93/94	94/95	95/96	Difference 95/96 -91/92	% Change 95/96 -91/92	Difference '95/96 - '93/94	% Change '95/96 - '93/94
GP	3,936,558	3,926,209	3,848,525	3,998,132	3,759,273	-177,285	-4.5%	-89,252	-2.3%
Specialist	1,475,000	1,494,320	1,489,661	1,537,677	1,477,162	2,162	0.1%	-12,499	-0.8%
<b>TOTAL</b>	<b>5,411,558</b>	<b>5,420,529</b>	<b>5,338,186</b>	<b>5,535,809</b>	<b>5,236,435</b>	<b>-175,123</b>	<b>-3.2%</b>	<b>-101,751</b>	<b>-1.9%</b>

\* Data Source: Medicare

One would expect a decline in physician services with the closure of 13 inpatient beds. However, to examine how physician service utilization in McAdam has changed as a result of the bed closure and the implementation of the CHC model, **Table 13A** also compares utilization changes for the years from 1993/94 to 1995/96. Over this period GP services to McAdam residents declined 13.3%, compared to 2.3% provincially (**Table 13B**). For the same period, services by specialists increased 7.9% in McAdam but actually declined by 0.8% for the province as a whole. The decline in GP physician services utilization in McAdam coupled with the high number of visits to the nurses (presented in Section 4.2, Table 4) could be evidence of a change in service delivery patterns.

It has been suggested that the practice patterns of physicians are influenced by their method of remuneration (24), such as increase in referrals to specialists as referring physicians change from FFS to salary or capitation remuneration. A examination of the numbers reveals that although services by specialists have, indeed, increased 7.9% over the period from 1993/94 to 1995/96, fluctuations have occurred annually. Based on this, coupled with the fact that there were only 1.2 FTE physicians for the area, a definitive statement cannot be made at this time regarding the referral patterns of the area physicians.

**Figure 6. Comparison of Physician Services Provided to McAdam Residents  
1991/92 – 1995/96**



Data Source: Medicare

**Services by Outside Physicians** — One might have hypothesized that the case load of GPs from outside the McAdam area might have increased if McAdam patients turned to alternative physicians. However, as **Table 14** shows, there was no increase in the total number of services to McAdam residents provided by outside GPs. In fact, the number of services performed by a physician other than the two area physicians has declined each and every year from 1991/92 to 1995/96 for a total decline of 26.5%. From 1993/94 to 1995/96, services by outside McAdam physicians have declined 2.2%.

**Table 14: Services Rendered to McAdam Residents by Outside Physicians<sup>\*,†</sup>**

GPs	1991/92	1992/93	1993/94	1994/95	1995/96	Difference 1995/96 - 1991/92	% Change 1995/96 - 1991/92	Difference 1995/96 - 1993/94	% Change 1995/96 - 1993/94
Services	5,616	4,897	4,218	4,154	4,126	-1,490	-26.5%	-92	-2.2%

\* GPs

† Data Source: Medicare

residents (11.1%) was considerably more than the number to all N.B. residents (0.1%). It should be noted that the provincial figures only include physician services remunerated by FFS, whereas the McAdam figures include all physician services. The annual changes in physician services to McAdam residents are depicted graphically in **Figure 6**.

**Table 13A: Comparison of All Physician Services\* to McAdam Residents  
1991/92 – 1995/96 †**

	1991/92	1992/93	1993/94	1994/95	1995/96	Diff. 1991/92 - 1995/96	% Change 1991/92 - 1995/96	Diff. 1993/94 - 1995/96	% Change 1993/94 - 1995/96
GP	15,139	12,863	9,868	9,358	8,554	-6,585	-43.5%	-1314	-13.3%
Specialist	4,116	4,411	4,238	4,101	4,574	458	11.1%	336	7.9%
<b>TOTAL</b>	<b>19,225</b>	<b>17,274</b>	<b>14,106</b>	<b>13,459</b>	<b>13,128</b>	<b>-6,097</b>	<b>-31.7%</b>	<b>-978</b>	<b>-6.9%</b>

\* Services are all procedures billed to Medicare

† Data Source: Medicare

**Table 13B: Comparison of FFS Physician Services to N.B. Residents  
1991/92 – 1995/96 \***

	1991/92	1992/93	1993/94	1994/95	1995/96	Diff. 1991/92 - 1995/96	% Change 1991/92 - 1995/96	Diff. 1993/94 - 1995/96	% Change 1993/94 - 1995/96
GP	3,936,558	3,926,209	3,848,525	3,998,132	3,759,273	-177,285	-4.5%	-89,252	-2.3%
Specialist	1,475,000	1,494,320	1,489,661	1,537,677	1,477,162	2,162	0.1%	-12,499	-0.8%
<b>TOTAL</b>	<b>5,411,558</b>	<b>5,420,529</b>	<b>5,338,186</b>	<b>5,535,809</b>	<b>5,236,435</b>	<b>-175,123</b>	<b>-3.2%</b>	<b>-101,751</b>	<b>-1.9%</b>

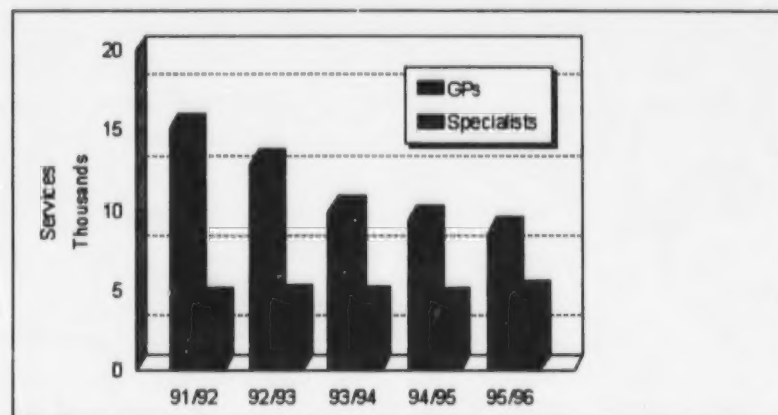
\* Data Source: Medicare

One would expect a decline in physician services with the closure of 13 inpatient beds. However, to examine how physician service utilization in McAdam has changed as a result of the bed closure and the implementation of the CHC model, **Table 13A** also compares utilization changes for the years from 1993/94 to 1995/96. Over this period GP services to McAdam residents declined 13.3%, compared to 2.3% provincially (**Table 13B**). For the same period, services by specialists increased 7.9% in McAdam but actually declined by 0.8% for the province as a whole. The decline in GP physician services utilization in McAdam coupled with the high number of visits to the nurses (presented in Section 4.2, Table 4) could be evidence of a change in service delivery patterns.



It has been suggested that the practice patterns of physicians are influenced by their method of remuneration (24), such as increase in referrals to specialists as referring physicians change from FFS to salary or capitation remuneration. A examination of the numbers reveals that although services by specialists have, indeed, increased 7.9% over the period from 1993/94 to 1995/96, fluctuations have occurred annually. Based on this, coupled with the fact that there were only 1.2 FTE physicians for the area, a definitive statement cannot be made at this time regarding the referral patterns of the area physicians.

**Figure 6. Comparison of Physician Services Provided to McAdam Residents  
1991/92 – 1995/96**



Data Source: Medicare

**Services by Outside Physicians** — One might have hypothesized that the case load of GPs from outside the McAdam area might have increased if McAdam patients turned to alternative physicians. However, as Table 14 shows, there was no increase in the total number of services to McAdam residents provided by outside GPs. In fact, the number of services performed by a physician other than the two area physicians has declined each and every year from 1991/92 to 1995/96 for a total decline of 26.5%. From 1993/94 to 1995/96, services by outside McAdam physicians have declined 2.2%.

**Table 14: Services Rendered to McAdam Residents by Outside Physicians<sup>\*,†</sup>**

	1991/92	1992/93	1993/94	1994/95	1995/96	Change	% Change	Change	% Change
GP*	5,616	4,897	4,218	4,154	4,126	-1,490	-26.5%	-92	-2.2%
Specialist†									
Services	5,616	4,897	4,218	4,154	4,126	-1,490	-26.5%	-92	-2.2%

\* GPs

† Data Source: Medicare



### 4.3 "Shared Practice" (see Figure 1, Module 2)

**Practice area: clinic visits** — Has the philosophy of collaborative or "shared practice" been fully operationalized at McAdam? A definitive answer to this question cannot be provided with the chart audit data. Both quantitative and qualitative data were used to evaluate the functioning of "shared practice." A chart audit was conducted by two independent auditors using a random selection of charts on clients with clinical diagnoses of hypertension or diabetes. The audit tools/instruments consisted of questions directly related to the practice protocols for each presenting condition. The questions were assigned weights, which allowed each client chart to be scored. A score of six (6) or more indicated that the protocols were being followed for that particular client. The results of the audit are shown in Table 15.

Examination of scores assigned to individual charts shows that the indicator score of six (6) or greater was achieved in only 10 (33.3%) of the charts for hypertension. Likewise, for diabetes, the indicator score was achieved in only 8 cases (26.7%) of the total. Though there was more variation in the scores recorded from an audit of the diabetes protocol (S.E.=0.58) than for hypertension (S.E.=0.54), the difference between the sample means of the two audits was not significant ( $t = 0.93$ ,  $\alpha = 0.05$ ,  $p \geq 0.05$ ).

The low incidence of numbers of charts showing evidence of protocol compliance and, therefore, by extension, collaborative practice, was at first puzzling. It appeared that practice patterns had not changed from the former model of service delivery. However, upon further analysis a number of reasons could account for this finding.

First, the auditors reported that information on the charts was not formatted in a manner that would show where and by whom decisions had been taken relative to the protocols. In other words, the charting procedures were not changed from former times to now dovetail with the processes outlined in the new protocols. Retrospectively, it now is clear that for chart auditing to be a mechanism by which collaborative practice is measured, client information must be charted in a way that reflects the use of whatever protocol is being followed. Acting on this finding, the CHC has since made changes to its charting methods to be more aligned with the process outlined in the protocols, and to show where and by whom decisions are taken.

In a similar type of exercise where explicit process criteria in a chart selection were used to assess practice — in their case, quality of practice; Sheps and Robertson (21) reported problems with chart information missing. In their study of an urban multidisciplinary community family practice clinic, they selected charts according to an eligibility criterion that included at least one episode of care for the condition under investigation in the study period. In marked similarity to the McAdam study, the same problems were identified regarding recording of patient information. They proposed that their study serve as baseline for a subsequent assessment, to occur after restructuring of charting, and after training. In McAdam, a repeat assessment could serve to measure improvement in charting as per protocols. Following changes in formatting and provision of training, it would then serve as a more reliable means of identifying whether or not collaborative practice is occurring.

The second factor to confound the chart audit was that the practice protocols were not fully in place until the project entered its second year of operation. Some charts, drawn through random selection, were probably from that period when protocols were just newly in place and the staff was unfamiliar with the type of information to be charted in order to illustrate compliance with protocols.

And finally, as confirmed in the consultation exercise, the philosophy of "shared practice" took time to become clear to the team. It then required time to operationalize that understanding into practice. The absence of detailed charting information relative to the protocols may have reflected this uncertainty.

In marked contrast to the findings of the chart audit, the solicited opinions of the "shared practice" team pointed to a clear understanding of collaborative practice. Interviewed as part of the key informant exercise, the members of the team, through anecdotal accounts, indicated that they understood and were comfortable with the philosophy of "shared practice." They all admitted that, in the beginning, they did not understand the concept, nor how to work within it; but over time, and with training, comfort levels and understandings have improved.

To probe the depth of understanding of "shared practice," the staff was asked to provide explicit examples which would illustrate the collaborative concept. From the examples provided below, it is obvious that the elements of "shared practice" are present, i.e., initial triage, appropriate referral to a member of the "shared practice" team, and follow-up. These exemplars clearly point to a functioning model of "shared practice."

Finally, in support of a collaborative practice occurring in McAdam, some of the previously presented utilization data provides secondary evidence to suggest the desired outcome. For instance, large numbers of visits to the nurse following confirmed diagnoses of hypertension or diabetes suggests that referrals from the physician to the nurse for monitoring and education (Table 4) were, in fact, occurring.

"Client 1 was coming to the hospital, when it was a hospital, for regular checks on blood sugar levels. When the Health Centre started, the client started coming in to see the nurse. Then the diabetic program started with yearly screening, and the diabetic protocol was put into place. We told the client about the program and he/she expressed an interest in participating. This year, when it was time for the yearly screening, we noticed that the result on one of the blood tests was quite different from what it was the previous year. So we asked some questions and, as it turned out, the client was having some problems, but had not told anyone. So the nurse arranged for more screening tests, and when the results came back, she referred the client to the doctor, who then ordered further tests. Tests confirmed the presence of a serious illness, and care was transferred to a specialist. We will follow up from the CHC after the consultation. This is a case of an individual who might have gone along for another year feeling miserable until they became too sick to treat. We are hoping for a good outcome for this client."

*McAdam CHC*



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**Table 15: Chart Audit Data: Evidence Of Shared Practice**

<b>HYPERTENSION PROTOCOL</b> (n=30)			<b>DIABETES PROTOCOL</b> (n=30)		
Chart#	Score		Chart#	Score	
1	1	$\Sigma x = 137$	1	6	$\Sigma x = 115$
2	2	$\bar{x} = 4.57$	2	5	$\bar{x} = 3.83$
3	5		3	0	
4	4	$SS_N = \Sigma x^2 - (\Sigma x)^2 / N$	4	2	$SS_D = \Sigma x^2 - (\Sigma x)^2 / N$
5	2		5	5	
6	4	$= 255.37$	6	4	$= 290.17$
7	14		7	9	
8	6	$S^2 = ss/df = 8.81$	8	6	$S^2 = ss/df = 10.00$
9	0		9	2	
10	4	$df = 29$	10	0	$df = 29$
11	5		11	6	
12	3	$S.E. = 0.54$	12	2	$S.E. = 0.58$
13	5		13	2	
14	9		14	2	
15	2		15	10	
16	7		16	3	
17	7	Where $\bar{x}$ = mean score	17	5	
18	7	$S^2$ = variance	18	5	
19	8	$df$ = degree of freedom	19	0	
20	5	$S.E.$ = standard error	20	0	
21	3		21	9	
22	7		22	4	
23	2		23	3	
24	4		24	3	
25	4		25	8	
26	0		26	7	
27	7		27	0	
28	6		28	2	
29	2		29	0	
30	2		30	5	
<b>Category</b> <b>n</b> Newly diagnosed / drug      1 Maintenance / drug          18 Maintenance / lifestyle      6 Newly diagnosed / lifestyle  5			<b>Category</b> <b>n</b> Newly diagnosed              2 Maintenance                  28		
1. Randomized selection of sample from charts, April 1, 1995 – March 31, 1996 2. Chart entries assessed and scored against practice protocols			3. Auditors: Betty M <sup>sc</sup> Williams, RN Anthony Lordon, M.D.		



"Client 2 came to one of our immunization clinics in the fall. While there, the client started telling the nurse how awful he/she was feeling. Based on what the client was telling her, the nurse did a blood sugar, and it was extremely elevated. So, following the diabetic protocol, which we had just gotten underway, the nurse referred the client right away to the physician. In the course of the next week, the client was tested again and diabetes was confirmed. The client was started on treatment, and referred back to the nurse for education. A member of the family came with the client to learn about diabetes, and the client was referred by the nurse to the dietician for diet counselling. So in the course of six or seven days the client was diagnosed, treated and had education underway. Every time we see the client, he/she expresses appreciation and relief at finding out the problem and having help in managing it. The client is doing very well."

*McAdam CHC*

"Client 3 took part in an Aging-Well screening clinic that one of the staff nurses conducted. Some tests were done, including cholesterol. When the results came back, there was the suggestion of a cholesterol problem. Since the client's family had a history on both sides of heart disease, the nurse referred the client to the doctor and to the dietician. The client has expressed relief in getting this help and possibly preventing some of the heart problems that other members of the family have experienced."

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**Practice area: emergency service** — The other module in which "shared practice" could occur was the emergency service. In that setting, nurses could assess, treat and discharge clients according to established protocols. From a review of the emergency service utilization data found in **Section 4.2**, a total of 944 visits were made to the emergency service at the CHC during the period of April, 1995 to March, 1996. Of these, there were only 94 (10%) visits that could be classified under the six emergency protocols; and of these visits, only 37 (39%) clients were seen and discharged by the nurse. However, the data also revealed that of the total visits, 367 visits were treated by the nurse. These visits did not fall under a protocol and, therefore, the nurse notified the physician. These visits were mainly for analgesics, and for colds and flu. Altogether, there were 404 emergency visits (43%) to the CHC that were attended by the nurse either alone, according to protocol, or on orders from the physician.

The low numbers of visits under the six practice protocols relative to the total number of 944 is puzzling. A review of these data confirm that the present protocols do not cover the most frequently presenting conditions in the McAdam emergency service and, therefore, are of limited value in furthering collaborative practice. Protocols covering colds and flus might be more appropriate.

#### **4.4 Community Program Development and Delivery (see Figure 1, Module 1)**

As noted by Wanke et al. (25), two dimensions of information are important before setting priorities for community-based programming. The first of these is "the public's perceptions of their own health needs and the collective health needs of the community in which they live; and the second is the community's perception of the types and levels of services most appropriate to meet those concerns." The tool most commonly used to gather information on these two dimensions is a needs assessment questionnaire.



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11	5		11	6	
12	3	$S.E. = 0.54$	12	2	$S.E. = 0.58$
13	5		13	2	
14	9		14	2	
15	2		15	10	
16	7		16	3	
17	7		17	5	
18	7	Where $\bar{x}$ = mean score	18	5	
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23	2		23	3	
24	4		24	3	
25	4		25	8	
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27	7		27	0	
28	6		28	2	
29	2		29	0	
30	2		30	5	
Category	n		Category	n	
Newly diagnosed / drug	1		Newly diagnosed	2	
Maintenance / drug	18		Maintenance	28	
Maintenance / lifestyle	6				
Newly diagnosed / lifestyle	5				
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#### **4.4 Community Program Development and Delivery (see Figure 1, Module 1)**

As noted by Wanke et al. (25), two dimensions of information are important before setting priorities for community-based programming. The first of these is "the public's perceptions of their own health needs and the collective health needs of the community in which they live; and the second is the community's perception of the types and levels of services most appropriate to meet those concerns." The tool most commonly used to gather information on these two dimensions is a needs assessment questionnaire.

**Needs Assessment** — As noted in the **Introduction**, a Needs Assessment Survey (7) was conducted in McAdam prior to the project start date and consisted of a self-administered questionnaire. The questionnaire was distributed only to households in the village. It was not pilot-tested and, consequently, the timing (summer), the design, plus an unforeseen issue of literacy, contributed to an overall response rate of under 30%. Nevertheless, given that most respondents were seniors, important information regarding the lifestyle of seniors was obtained. Some of the issues identified were loneliness, smoking, and alcoholism. Unfortunately, because of its underrepresentation of the community, e.g., young families, the Needs Assessment Survey was not as useful as it might have been. This shortcoming was identified during the focus group exercise with the Interdisciplinary Action Committee.

**Identifying and coordinating programming** — The Interdisciplinary Action Committee has been described elsewhere in this report. Their role in community programming should not be underestimated. The members see themselves as the “eyes and ears” of the community, and they bring that important perspective to the planning process. In Year 1 of the project, the Committee met biweekly. More recently, the meetings have become monthly. Comprehensive Minutes are recorded and distributed. An example of the work of this Committee is illustrated below:

“In the fall of 1995, the Interdisciplinary Action Committee discussed how difficult it was for families to care for loved ones in the home. With early discharges, more and more family members were needed to care for someone either recovering from an illness, or perhaps dying. Often this role was unfamiliar to them and many experienced burnout. The Interdisciplinary Action Committee identified that a video series that taught simple facts of nursing care would be very useful as a resource to the families. It could be loaned out to family caregivers. This put in motion a series of partnerships among health providers in the Region and with Communications NB, which resulted in a video series based in McAdam and using a local family who volunteered to share their experience.”

Client visits to the CHC provide another means whereby staff come to recognize recurring problems and design programming according to needs. Examples of a program developed in this manner was the migraine management program.

And, finally, programming may be developed in response to requests from Community organizations such as schools and youth groups. A program on proper hand washing was developed upon such a request.

Overall, the following key points can be used to describe the community programming activity:

**Key points —**

- Community programming was attended by 649 individuals, with 998 contact “visits,” which means that at least a third of the individuals attended more than one program
- 24 different programs were developed and presented
- 104 community presentations were made
- All programs were generated through some form of community request

**Table 16** presents a detailed account of programs offered over the past fiscal year.

**Table 16: Program Summary for 1995/96 \***

Program	Attendance	Initiator	Health Issue
Diabetes Classes	14	CHC	diabetes
Hypertension	7	Community/NA	hypertension
Health Fairs — women	50	IDC	women's health
Health Fair — high-school	grades 7-12 and staff	School Health Committee	adolescent health
Menopause	11	HFS	osteoporosis, menopause
Healthy Weight	5	HFS	mental health, lifestyle
Asthma	11	Community/NA	asthma
Prenatal Classes — group	14 (7 couples)	CHC	pregnancy
Prenatal Classes — individual	2 (1 couple)	Community	pregnancy
Aging Well	9 (ongoing)	Community/NA	positive aging
Little Locomotives	5	Community	parenting
Elementary School — hand washing	grades k-6	Community	hygiene
Elementary School — health	kindergarten	Community	wellness/health
BP screening	170	Community/NA	hypertension
Video Series	n/a	IDC	home support
Waukehegan Manor	8	IDC	positive aging
Girl Guides — hand washing	8	Community	hygiene
Collective Kitchens	4 cooking for 8	IDC	life skills
High-school — health marketing	15 students	Community	adolescent health
Boney Walk — osteoporosis	35-40	HFS/community	osteoporosis
Smoking Cessation	tv viewers 1 registration	NA, HFS, IDC	smoking
Heart to Heart	6	CHC	heart disease
Canada Heart & Stroke Bikeathon	29 registrants	CHC	heart disease
Migraine Support	3 ongoing	MHC	migraines

\* Legend: MHC McAdam Health Centre; IDC Interdisciplinary Committee; HFS Women's Health Fair Survey; NA Needs Assessment

Source: McAdam CHC

**Marketing of programs to the community** — Significant emphasis has been placed on the marketing of the services at the CHC and its programs. To promote these activities, marketing strategies have been adopted that have ranged from regular health-related items in the local newspaper to posting of notices of upcoming clinics and programs in strategic spots around the community and to authoring articles in professional journals. As well, the staff has been active in welcoming visitors to the CHC and in providing presentations on the model to specific interest groups.

**Programming as a tool for staff development** — The role of community-based programming as a staff development strategy was an unanticipated outcome. Before Year 2 of the project, staff nurses had not been involved to any great degree in health promotion, disease prevention efforts. They did not identify a major role for themselves in the CHC beyond the physical care given in the clinic or for people in the short-term beds. The RN-5/CNS was hired specifically for community program development. She worked with the staff to help them develop and utilize their skills in ways that furthered their understanding of the interdisciplinary team concept. Judging from comments provided by the focus group consultation with health care professionals, it is evident that the nurses recognize that there has been a shift both in how they view their professional role, and in the level of commitment to the project. Community programming has been one means for this to occur. It has also been one mechanism whereby community activities are interfaced and blended with in-house activities. This integrated approach has offered further structural strength to the remodelled health services as well as assisting the "shared practice" team to appreciate the dynamic nature of their role.

**Community response to programming** — From the focus group exercise with individuals in the community there is clearly an awareness of the types of programs offered in the community. The public especially appreciates the efforts of the staff at the CHC, and sees them as responsible for the quality of services provided. Staff members are known to the community, and are respected for their professionalism and approachability. Several groups mentioned that they were especially appreciative of the responsiveness of the CHC in providing programs for their employees, family members and others in the community; and they particularly appreciated the ease of access. According to participants, programming related to health concerns is viewed as one of the ways that has helped residents achieve greater confidence in being better able to look after their own independence.

**Coordination among service providers** — As planned initially, other health services were to be co-located in the CHC. To date, only EMH and the mental health professionals use the CHC on a regular basis as a site for program delivery. Although health service providers from other agencies are members of the Interdisciplinary Action Committee, it appears that they do not use this as an opportunity to plan and coordinate their services with those being offered through the CHC. Moreover, there has been some concern raised, particularly on the part of Public Health, that duplication of service is occurring. An example cited is in reference to pre-natal service delivery where Public Health and the CHC both offer the service. Compounding the problem, there may exist a difference in the philosophy between how agencies view service delivery: enabling the



client or "doing" for the client. It would appear that some discussion needs to occur to clarify practice areas and philosophies (see **Appendix J**).

**Outstanding issues** — Two focus groups identified additional services and programs that, in their view, would benefit the community. The suggestions were as follows: vision care, dental care, speech therapy, child care, alcohol dependency and wellness. Dental care has been an ongoing challenge and even now is an unresolved issue. The community does not have a dentist, nor is the community large enough to support a full-time practice. A dental hygienist would seem to be an alternative except that in line with regulations governing the dental profession, dental hygienists cannot practice without a dentist present in the same facility. In order to resolve this problem, changes would have to occur in the professional regulatory legislation. Meanwhile, some thought is presently being given to partnering with the school to transport children to St. Stephen or Fredericton for group dental appointments.

While anecdotal accounts have provided positive feedback regarding the perceived usefulness of programs, they do not provide a measure of whether positive behaviour change has occurred, or whether health has improved. Acquisition of knowledge does not guarantee action. Several methods can be followed to determine if, in fact, behaviour and health have changed. Foremost of these would be a longitudinal study using health status indicators to measure the health and lifestyle choices of a sample of clients who participated in the programming and other services from the CHC. However, this would be a long term activity and was not feasible within the time frame for this evaluation study.

Finally, since the project has been in operation for almost two years, it may be timely to once again plan for a needs assessment survey, especially since the first study was of limited use. Properly designed and administered, a needs assessment study would be useful in developing planning strategies for the years ahead based on identified needs by residents. As well, it could serve to ensure that programs being provided are still those that the community views as priority.

#### **4.5 Staff Training**

The importance of promoting the training of primary care providers to meet community health care needs has been identified (26). In the McAdam project, the nurses' involvement in community programming was carefully supported by both in-house expertise and by educational programming for the nurses themselves. Educational opportunities were tied closely to the nurses' professional commitments in order to ensure that opportunities existed for them to apply what they have learned. In other words, training needs were individually identified such that nurses were trained in the specific areas in which they functioned in the CHC. Examples of training opportunities include attendance at workshops on hypertension, diabetes, program planning and Advanced Cardiac Life Support (ACLS). The full-time physician also recently completed ACLS training. An example of in-house training was the Blood Pressure session during which nurses were given a refresher on the correct, and standard method for reading blood pressures. Some training activities are on-going, such as ACLS for all staff. In addition, all staff has been given instruction on the use of the *Meditech* computer system.



Unlike the nurses and the full-time physician, training opportunities for other members of the "shared practice" team are not directly linked to the CHC's budget. The positions of part-time physician, dietitian, pharmacist and physiotherapist are linked to other budgets where training opportunities may exist. Thus, it is not surprising that most of the educational opportunities at the CHC have been directed to the nurses, who in the final analysis, are in most frequent contact with clients, and who require an enhanced knowledge base in order to support the initial triage function, as well as to work effectively within the case management structure of service delivery.

A sample listing of training opportunities provided in 1995/96, and the rationale for participation are shown in **Table 17**.

#### **4.6 Level of Satisfaction**

Two variables have been examined in order to gauge the level of satisfaction of area residents with the McAdam model. The first of these is utilization /participation of services. Participation data are especially useful when comparing satisfaction with different processes for service delivery such as is found in McAdam (27). Utilization of services and staff by area residents, as well as participation in programming, may reflect a measure of confidence in what is being offered.

The second variable for measuring satisfaction is the perceptions/opinions of the affected target group. In this case, focus group consultations, as well as a range of person-to-person interviews with key informants, followed by a telephone survey and a letter from a local business, provided evaluators with the opinions of area residents, and of the CHC staff (refer to consultants' reports, **Appendices G, H, I, and J**), as well as the opinion of Public Health and EMH regarding collaboration (**Appendix J**).

**Staff satisfaction** — Regardless of whether the opinions were expressed in the telephone interview, or declared in the focus group sessions, all respondents — members of the interdisciplinary "shared practice" team and other staff — stated that in the beginning, they had reservations and misgivings about the project. For the nurses, these reservations arose from a lack of clarity in roles and responsibilities, and from a failure in understanding how the model was intended to work. "We would read articles about the CHC and not see ourselves at all. We thought, for example, that there was to be only one 'shared practice' nurse, but we came to realize that we all had a part to play." At the outset, no mechanism was in place to mentor the staff in their new roles, and since the model was itself without precedent in New Brunswick, "it was almost a year before we really knew how to work together and how to work in the community." In addition, there was confusion over who "owned" the project, Region 3 Hospital Corporation or the DHCS.

After 21 months in operation, the staff unanimously stated that positive strides have been made in implementing and working within the model. To operate effectively, upgrading of skills and knowledge were necessary. Such statements as "we enjoy it more than before," "have a more defined role," "more comfortable with our role," "now know what we are doing," were common opinions voiced during in the focus group exercise. All agreed that there was a learning process involved, and that the arrival of a project coordinator in the second year helped that process. When asked about the strength of the working relationship of the team, respondents said that they "see

**Table 17: A Sample of Training Opportunities for CHC Staff\***

<b>Opportunity</b>	<b>Rationale</b>
National CHC Conference	To become familiarized with other CHC models; network with other health providers
International CHC Conference	Same as above
Health Promotion Conference	To enhance knowledge base
Diabetes Education Day	To focus on specialty
Aging well — in-house workshop	To focus on physiotherapy screening measures
Asthma Update	To focus on specialty
Program Planning (offered by Region 3)	To learn about program development
Postpartum Support Program (offered by Region 3)	To refresh knowledge
Health Service Centre Nurses Group	To exchange ideas
Leadership training (offered by Region 3)	Training for senior nurse managers
ACLS	Accreditation for staff
Blood Pressure training — in house workshop	To refresh knowledge on standards and screening
Training for I-Stat testing (offered by Region 3)	To participate in pilot study
Meditech training	To support collection of client data
Cardiac Update (offered by the DECH)	To refresh knowledge in the reading of electrocardiograms
Trauma Course (offered by the DECH)	To enhance knowledge base for emergency service
Nutrition Conference — focus on health promotion issues	To enhance knowledge in nutrition

\* Data Source: McAdam CHC

more of each other now," "feel more at liberty to talk amongst themselves," and they are "less isolated in their roles than before."

A significant adjustment has had to occur for the receptionist, who is seen as having acquired a bigger role. Unlike in the days when she was strictly the doctor's receptionist, she now sees and greets everyone coming to the Centre. A frustration for her and the other staff members is that the reception area is without privacy — "everybody hears everything and knows what's going on."

The physicians also are unanimous in the reversal of their former opinions regarding the impact of change in the manner of health care delivery. A particularly problematic area for them was in understanding the mechanics of how the "shared practice" would work. There were concerns about how the new practice would impact on the quality of health care. There now appears to be a greater level of comfort with the process, and physicians feel that the team has come together with a minimum of "turf" issues.

The long-time physician particularly welcomes the relief from the long hours of former days. He now works a "normal" day and has help with the on-call schedule. He is highly supportive of the programming efforts underway in the community and feels that, from his perspective, programming has contributed to improved health in the community.

Both the physicians and nursing staff were not without some frustrations, particularly as they relate to interaction with hospitals in Region 3. The concern was that others in health care may not fully understand the new arrangement at McAdam, and may wonder why "you're sending your patients to us." The smooth transfer and referral of patients to other facilities and especially the DECH is impacted. It was felt that there needs to be more contact/collaboration with the DECH, and that perhaps protocols developed jointly for the transfer of patients might be advantageous.

The other area of frustration relates to the paucity of literature and research material. Nurses and other members of the "shared practice" team are required to develop programs and educational tools, and yet there are limited literature resources at the CHC. Usually, staff travel on their own time to access the library at the DECH. An Internet hookup would be helpful.

In final analysis, the members of the "shared practice" at McAdam view the model as a positive example of the delivery of health care in a rural setting. Anecdotal evidence points to a unified care delivery and expedience in service delivery which is perceived to contribute to the quality of care. These findings are consistent with other reports which have shown by means of a satisfaction survey, administered in a collaborative practice setting, "high satisfaction of the staff with the informal consultation network and the development of collaborative relationships based on trust, mutual respect and an understanding of the unique and complementary contributions each professional made to patient care" (25).

**Community satisfaction** — Community opinion regarding the CHC was obtained through a focus group session held with the original members of the Community Consultation Group, which was a forum of citizens who helped with the initial planning of the project; as well as residents of the area who answered the invitation to either participate in the citizen's focus group or to be interviewed by telephone.

Initially, the community thought that the loss of beds signalled the beginning of diminished health care services in McAdam. With a feared decrease in level of service, they predicted a concomitant decline in the quality of health care. Furthermore, because the downsizing of the community hospital, and development of an alternative service delivery model were part of a larger provincial scheme over which the community had limited control, it was viewed at the outset with some skepticism.

Consequently, it has come as an unexpected finding that the community is overwhelmingly supportive of the CHC, and have changed their opinions regarding their expectations vis a vis quality of care. In all cases, views regarding the project were positive. Citizens identified improved care, improved access to service and improved availability of services as accounting for this change. When asked how to rate the project, the response was that it was "100% better" and "health hasn't diminished at all." A point made repeatedly was that under the previous delivery, "if the physician was busy, we had nowhere else to go. If doctor couldn't see us, we did without. Now we can always see someone who will help us." In addition, "no big wait" to see a health provider, and "don't have to go to Fredericton or St. Stephen now and that takes pressure off travelling" were additional comments made regarding access to services. The services of the dietician and the physiotherapist were specifically noted as "real nice."

The staff at the CHC was seen as pivotal in helping residents understand the new mode of service delivery. When asked about the strengths of the model, the community said; "The staff knows us and we know them, and they are good at what they do." The staff were seen as proactive in program development and willing to develop programs requested by the community. In fact, there was a strong sense of community involvement in the CHC.

The community stated explicitly that they felt confident that the CHC was able to meet health needs in the area. The initial fear that there would be no services in the event of a crisis has dissipated. In this regard, the referral system and ambulance systems were singled out as important assets, along with operation of the observation beds and the emergency service. As well, given the distance from the nearest hospital facility, a palliative care bed were seen as essential for the community. "Its stressful and difficult enough for families when a family member is ill, so its nice to have them near."

#### **4.7 Expenditures**

When comparing the costs of the CHC with the former 13-bed McAdam hospital, it is important to consider the cost of operating the Facility, as well as any costs that may have been displaced or deferred as a result of the reduction of services. Analogously, additional or enhanced services are important to the global picture. The operating costs for the Facility in 1991/92, when it was a 13-bed hospital, are compared directly with the current operating costs of the CHC. To analyse the displaced/deferred costs, a number of issues require examination. These include the following: changes in the number of ER visits by McAdam residents to neighbouring hospitals (i.e., CCH, DECH), changes in the number of McAdam residents admitted as inpatients to other hospitals, changes in ambulance utilization, and changes in the number of visits by McAdam residents to physicians outside the area.



Due to difficulties in collecting historical data, the cost of McAdam patients utilizing other ERs was not included in the cost analysis. However, in lieu of a quantitative approach to measuring add-on ER visits by McAdam residents to neighbouring hospitals, a survey was conducted asking users why they chose the outside ER. The information from the survey was then used to identify "add-on" users to outside ERs ("add-on" in the sense that they would not have used an outside ER had the pre-CHC arrangement been still in place). As the results in **Section 4.2** indicated, only a few users indicated deliberate avoidance or displeasure with the CHC model.

Much of the success of the CHC may be associated with the efforts of home care services (i.e., EMH). For example, home discharges and reduced length of stays in the neighbouring hospitals may have been facilitated by EMH. Although the cost of EMH for the McAdam area was not quantifiable and, subsequently, not included in the cost analysis, its importance and contribution to the area should be kept in mind when examining the net change in expenditure.

**Facility expenditures** — **Table 18** shows actual expenditures for the McAdam Facility for the fiscal years 1991 through 1995. **Part A** of the table includes all expenditures for the Facility, except for those made directly to the physicians. Included with salaries and benefits (line 1) are the salaries and benefits of all nurses, maintenance workers, clerical staff, etc. Included with supplies (line 3) are all medical and surgical supplies (i.e., syringes, drugs, etc.) as well as non-medical items (i.e., bedding, stationary, food, etc.).

**Part B** shows all payments made for physician services to McAdam patients, except for ER services at DECH and CCH that are paid on a sessional basis. This includes any physician service rendered to a McAdam resident whether it be in the McAdam area or outside of the area or region. Payments are broken down according to general practitioner (GP) fee-for-service (FFS) (line 6), specialist FFS (line 7), and medical staff salaries (line 9). Prior to 1993, when the area physician agreed to a salary contract, physician payments were made strictly according to FFS. The GP FFS payments following fiscal 1993 would include partial year billings by the salaried physician (for the part of the year that was still billed according to FFS), FFS billings by locums, and FFS billings by physicians from outside of McAdam (St. Stephen, for example).

**Table 19** compares total expenditures for the McAdam Facility when it was a 13-bed hospital in 1991/92 with the current CHC model. The actual figures for 1995/96 from **Table 18** have been deflated to 1991 dollars in order to net out all inflationary increases accumulated since the 1991 fiscal year. As for expenditures of the Facility and of physicians, the grand total shows that the conversion to a CHC has resulted in savings of \$130,157 (10.3%) compared to operating costs of the 13-bed hospital in 1991/92. The saving is attributable to reduced expenditure on supplies (-42%) and a reduced wage bill for non-physician staff (-16%). These savings were partially offset by an increase in physician payments. In fact, physician payments were almost \$48,533 (11.2%) higher under the CHC model than they were in 1991/92.

The increase was driven mainly by a significant increase in FFS billings by specialists. After adjusting for increases in the fee schedule, payments to specialist physicians increased 25% between 1991/92 to 1995/96. As **Table 19** shows, the number of specialist services increased by only 11%. The increase in payments to specialist physicians must be the result of a changing

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**Table 18: Actual Expenditures on McAdam Residents \***

<b>PART A – Facility</b>	<b>1991/92</b>	<b>1992/93</b>	<b>1993/94</b>	<b>1994/95</b>	<b>1995/96</b>
(1) Salaries & Benefits	\$646,268	\$634,552	\$486,405	\$502,075	\$551,775
(2) Retirement Allowance		\$29,892			
(3) Supplies	\$183,898	\$153,486	\$138,381	\$125,505	\$108,012
(4) ECG	\$1,200	\$3,305	\$1,127	\$1,243	\$1,374
<b>(5) Total (Excluding Physician Payments)</b>	<b>\$831,366</b>	<b>\$821,235</b>	<b>\$625,913</b>	<b>\$628,823</b>	<b>\$661,161</b>
<b>PART B – Physicians</b>					
(6) GP FFS Billings	\$229,970	\$200,667	\$154,202	\$92,600	\$77,926
(7) Specialist FFS Billings	\$204,978	\$221,469	\$224,495	\$217,680	\$266,892
(8) Total FFS Billings	\$434,948	\$422,136	\$378,697	\$310,280	\$344,818
(9) Medical Staff Salaries	\$0	\$0	\$108,357	\$141,965	\$172,009
<b>(10) Total Physician Payments</b>	<b>\$434,948</b>	<b>\$422,136</b>	<b>\$487,054</b>	<b>\$452,245</b>	<b>\$516,827</b>
<b>(11) Grand Total</b>	<b>\$1,266,314</b>	<b>\$1,243,371</b>	<b>\$1,112,967</b>	<b>\$1,081,068</b>	<b>\$1,177,988</b>

\* Data Source: Financial Services, Medicare

composition of services toward those that are more expensive. Moreover, since total payments, inflationary increases removed, increased more than the number of services (25% versus 11%), it must be the case that more expensive services were rendered.

After adding the GP FFS billings and medical staff salaries together, there was a small saving (\$2,550) in the wage bill for GPs (**Table 20**). It should be understood, however, that the change in remuneration from FFS to salary includes benefits in addition to the annual salary. Under the FFS arrangement, the physicians were considered self-employed and required to finance all office and associated costs. However, under the current remuneration arrangement, the two physicians for the area are paid a salary and are also provided with an office and the necessary support at no additional cost to them. In other words, the salary received by each physician is net of any expenses, since all work related expenses are absorbed by the Facility. In a sense, the salaries of the physician underestimate their true cost to the system.



**Table 18: Actual Expenditures on McAdam Residents \***

<b>PART A – Facility</b>	<b>1991/92</b>	<b>1992/93</b>	<b>1993/94</b>	<b>1994/95</b>	<b>1995/96</b>
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**Table 19: Comparative (1991 \$s) Expenditures for McAdam Residents  
1991/92 and 1995/96 \***

PART A - Facility	1991/92		1995/96 †		Difference	
	\$	%	\$	%	\$	%
(1) Salaries & Benefits	\$646,268	51.0%	\$544,694	47.9%	\$-101,574	-15.7%
(2) Supplies	\$183,898	14.5%	\$106,626	9.4%	\$-77,272	-42.0%
(3) ECG	\$1,200	0.1%	\$1,356	0.1%	\$156	13.0%
(4) Total Excluding Physician Payments	\$831,366	65.7%	\$652,676	57.4%	\$-178,690	-21.5%
<b>PART B - Physicians</b>						
(5) GP FFS Billings	\$229,970	18.2%	\$70,906	6.2%	\$-159,064	-69.2%
(6) Specialist FFS Billings	\$204,978	16.2%	\$256,061	22.5%	\$51,083	24.9%
(7) Total FFS Billings	\$434,948	34.3%	\$326,967	28.8%	\$-107,981	-24.8%
(8) Medical Staff Salaries	\$0	0.0%	\$156,514	13.8%	\$156,514	100.0%
(9) Total Physician Payments	\$434,948	34.3%	\$483,481	42.6%	\$48,533	11.2%
(10) Grand Total	\$1,266,314	100.0%	\$1,136,157	100.0%	\$-130,157	-10.3%

\* Data Source: Financial Services, Medicare

† All items, excluding physician payments, were deflated according to the implicit price index by final domestic demand (1.013%). Physician payments were deflated according to fee schedule increments: 9.9% for GPs and 4.23% for specialists.

In addition, as shown in **Table 20**, while there was a minimal reduction in expenditures on GPs, there was a significant reduction in the number of GP services rendered (reported earlier in **Section 4.2**). In fact, the number of services declined by 44%, compared to a 1% reduction in expenditure on GPs.

**Ambulance Services** — Utilization and costs of ambulance services for the years 1991/92 and 1995/96 are shown in **Table 21**. Included with services are all trips made to and from McAdam for hospital care. The most frequent ambulance services were trips made from within McAdam to the CHC, from the CHC to DECH, and from the CHC to CCH. Ambulance services to and from the



**Table 20: Comparative Analysis: Physician Services Versus Expenditure**

Descriptor	1991/92 (13 Beds)	1995/96 (CHC)	Difference	
	#/\$	#/\$	#/\$	%
McAdam GPs	9523	4428 Full Time GP (80%) = 3542 Part Time GP (20%) = 886	-5095	-53.5%
Outside McAdam GPs	5616	4126	-1490	-26.5%
<b>Total GP Services</b>	<b>15,139</b>	<b>8554</b>	<b>-6585</b>	<b>-43.5%</b>
GP Expenditure (FFS)	\$229,970	\$70,906	-\$159,064	-69.2%
GP Expenditure (Salary)	\$0	\$156,514	\$156,514	100.0%
<b>Total GP Expenditure</b>	<b>\$229,970</b>	<b>\$227,420</b>	<b>-\$2,550</b>	<b>-1.1%</b>

attached Waukehegan Manor have been excluded. The total payments were calculated by multiplying the total number of trips for each destination by the predetermined rate. From 1991/92 to 1995/96, the number of ambulance services increased by 22.5% and payments, inflationary increases removed, increased by 55.8%. Since constant 1991 dollars were used, the fact that the increase in payments significantly outstripped the increase in utilization means that the composition of services shifted toward more expensive services. That is, the total number of services in 1995/96 included more trips to DECH, which are significantly more expensive than local trips which were more frequent under the previous model.

The increase in ambulance services and payments may also be an indicator that the number of trips for medical purposes by residents themselves may have increased. In other words, it would not be surprising to expect changes in private trips to mirror changes in ambulance trips. Assuming this to be true, the total increase in the cost of travel would be higher than indicated in **Table 21**.

**Inpatient Admissions** — **Table 22A** shows the total cost of McAdam admissions to DECH and CCH for the fiscal years 1991/92 to 1995/96. It should be stressed that a crude methodology was used to calculate the per diems. Essentially, for calculating the per diems, the total cost of operating the facility was divided by the total number of patient days. This is considered a rough approximation for the per diems because the total cost of the facility includes a number of costs not directly related to the cost of providing care to a patient. Nevertheless, the methodology used is consistent for each year, making year to year comparisons possible. After calculating the per diems for each Facility, the total cost of in-patient admissions was obtained by multiplying the per diem by the total number of patient days.

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<b>(9) Total Physician Payments</b>	<b>\$434,948</b>	<b>34.3%</b>	<b>\$483,481</b>	<b>42.6%</b>	<b>\$48,533</b>	<b>11.2%</b>
<b>(10) Grand Total</b>	<b>\$1,266,314</b>	<b>100.0%</b>	<b>\$1,136,157</b>	<b>100.0%</b>	<b>\$-130,157</b>	<b>-10.3%</b>

\* Data Source: Financial Services, Medicare

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GP Expenditure (FFS)	\$229,970	\$70,906	-\$159,064	-69.2%
GP Expenditure (Salary)	\$0	\$156,514	\$156,514	100.0%
<b>Total GP Expenditure</b>	<b>\$229,970</b>	<b>\$227,420</b>	<b>-\$2,550</b>	<b>-1.1%</b>

attached Waukehegan Manor have been excluded. The total payments were calculated by multiplying the total number of trips for each destination by the predetermined rate. From 1991/92 to 1995/96, the number of ambulance services increased by 22.5% and payments, inflationary increases removed, increased by 55.8%. Since constant 1991 dollars were used, the fact that the increase in payments significantly outstripped the increase in utilization means that the composition of services shifted toward more expensive services. That is, the total number of services in 1995/96 included more trips to DECH, which are significantly more expensive than local trips which were more frequent under the previous model.

The increase in ambulance services and payments may also be an indicator that the number of trips for medical purposes by residents themselves may have increased. In other words, it would not be surprising to expect changes in private trips to mirror changes in ambulance trips. Assuming this to be true, the total increase in the cost of travel would be higher than indicated in **Table 21**.

**Inpatient Admissions** — **Table 22A** shows the total cost of McAdam admissions to DECH and CCH for the fiscal years 1991/92 to 1995/96. It should be stressed that a crude methodology was used to calculate the per diems. Essentially, for calculating the per diems, the total cost of operating the facility was divided by the total number of patient days. This is considered a rough approximation for the per diems because the total cost of the facility includes a number of costs not directly related to the cost of providing care to a patient. Nevertheless, the methodology used is consistent for each year, making year to year comparisons possible. After calculating the per diems for each Facility, the total cost of in-patient admissions was obtained by multiplying the per diem by the total number of patient days.

**Table 21: Comparison of Ambulance Services and Payments (1991 \$s)**  
**1991/92 and 1995/96 \***

Item	1991/92	1995/96	Difference	% Change
Services (trips)	209	256	47	22.5%
Payments	\$18,730	\$33,067 †	\$10,464	55.8%

\* Data Source: McAdam Ambulance Service and DHCS, Ambulance Services

† Using a weighted average of rate increases, payments for 1995/96 have been deflated by 17.8%.

**Table 22A: Cost of McAdam Admissions to DECH and CCH**  
**1991/92 – 1995/96 \***

Item	1991/92	1992/93	1993/94	1994/95	1995/96 †	Difference 1995/96 - 1991/92
<b>DECH</b>						
Total Days Stay	1850	1764	2010	1532	1242	-608 -32.9%
Per Diem	\$439.00	\$504.24	\$528.57	\$553.48	\$553.48	-\$114.48 -26.1%
Total Cost	\$812,150	\$889,479	\$1,062,426	\$847,931	\$687,422	-\$124,728 -15.4%
<b>CCH</b>						
Total Days Stay	272	156	171	156	189	-83 -30.5%
Per Diem	\$434.02	\$464.05	\$497.02	\$517.15	\$517.15	-\$83.13 -19.2%
Total Cost	\$118,053	\$72,392	\$84,990	\$80,675	\$97,741	-\$20,312 -17.2%
<b>Grand Total</b>	<b>\$930,203</b>	<b>\$961,871</b>	<b>\$1,147,416</b>	<b>\$928,606</b>	<b>\$785,163</b>	<b>-\$145,040</b> <b>-15.6%</b>
Deflator ‡	1.000	1.002	1.012	1.012	1.013	
<b>Grand Total (1991 \$s)</b>	<b>\$930,203</b>	<b>\$959,951</b>	<b>\$1,133,810</b>	<b>\$917,595</b>	<b>\$775,087</b>	<b>-\$155,116</b> <b>-16.7%</b>

\* *Data Source: DHCS, Program Support Services and Financial Services.*

† Since 1994/95 per diems were substituted for 1995/96, the total cost for 1995/96 is only an estimate.

‡ The Implicit Price Index by Final Domestic Demand was used as a deflator.

Comparing the two years, 1991/92 and 1995/96, one notes that the total (DECH and CCH combined) number of inpatient days of McAdam residents has been significantly reduced for both facilities. When examining the intervening years, the number of inpatient days appears to fluctuate at CCH; at DECH, inpatient days have gone down for each year except for 1993/94. **Table 22B** shows the average annual percentage change in total days stay over the past five years for all inpatients and for inpatients from McAdam. Note that, although there has been a global reduction in total days stay, the reduction in days stay by McAdam residents at DECH was significantly higher than for all inpatients at the hospital. The fact that there has been a global reduction in total days stay at both hospitals strongly suggests that the decline is due to a number of developments in the hospital sector, independent of the McAdam project (bed closures, for example), and also to the availability of EMH. **It is, therefore, stressed that the intention of presenting this information is not to imply a causality between the efforts of the CHC and a reduced number of patient days, but to show the total cost of providing health care to inpatients from McAdam.**

The reduction in the total number of inpatient days has led to admission costs for McAdam residents in 1995/96 that are significantly lower than in any of the four preceding years. This cost reduction is attributed entirely to a reduction in the costs at DECH, since the admission costs by McAdam residents at CCH in 1995/96 are, in fact, higher than in any of the preceding three years. About 87% of the total inpatient days by McAdam residents are spent at the DECH which means that the reduction in admissions at this hospital carry a much stronger weight in the total admission costs.

**Table 22B: Average Annual Percentage Change in Total Days Stay  
1991-1996 \***

	DECH	CCH
McAdam Inpatients	-8.4%	-5.2%
All Inpatients	-5.7%	-5.9%

\* *Data Source: DHCS, Program Support Services; DECH, CCH.*

**Total Expenditures** — Using information presented in preceding tables, **Table 23** presents the total cost comparison for 1991/92 and 1995/96. Measured in constant 1991 dollars, there has been a net expenditure reduction of \$274,809 or 12.4% when measuring the total cost of providing health care to McAdam residents for two points in time. What is interesting about the expenditure reduction is that most of it occurred from reduced expenditures on inpatient admissions. This is surprising, because one would tend to hypothesize that the closure of inpatient beds in McAdam would mean an increase in admissions elsewhere, namely DECH and CCH. In fact, as the table clearly shows, the opposite has occurred. However, to qualify this, it is stressed once again that



**Table 21: Comparison of Ambulance Services and Payments (1991 \$s)  
1991/92 and 1995/96 \***

Item	1991/92	1995/96	Difference	% Change
Services (trips)	209	256	47	22.5%
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1991/92 – 1995/96 \***

Item	1991/92	1992/93	1993/94	1994/95	1995/96 †	Difference 1995/96 - 1991/92
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Per Diem	\$439.00	\$504.24	\$528.57	\$553.48	\$553.48	-\$114.48 -26.1%
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Total Days Stay	272	156	171	156	189	-83 -30.5%
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Total Cost	\$118,053	\$72,392	\$84,990	\$80,675	\$97,741	-\$20,312 -17.2%
<b>Grand Total</b>	<b>\$930,203</b>	<b>\$961,871</b>	<b>\$1,147,416</b>	<b>\$928,606</b>	<b>\$785,163</b>	<b>-\$145,040</b> <b>-15.6%</b>
Deflator ‡	1.000	1.002	1.012	1.012	1.013	
<b>Grand Total (1991 \$s)</b>	<b>\$930,203</b>	<b>\$959,951</b>	<b>\$1,133,810</b>	<b>\$917,595</b>	<b>\$775,087</b>	<b>-\$155,116</b> <b>-16.7%</b>

\* Data Source: DHCS, Program Support Services and Financial Services.

† Since 1994/95 per diems were substituted for 1995/96, the total cost for 1995/96 is only an estimate.

‡ The Implicit Price Index by Final Domestic Demand was used as a deflator.

Comparing the two years, 1991/92 and 1995/96, one notes that the total (DECH and CCH combined) number of inpatient days of McAdam residents has been significantly reduced for both facilities. When examining the intervening years, the number of inpatient days appears to fluctuate at CCH; at DECH, inpatient days have gone down for each year except for 1993/94. **Table 22B** shows the average annual percentage change in total days stay over the past five years for all inpatients and for inpatients from McAdam. Note that, although there has been a global reduction in total days stay, the reduction in days stay by McAdam residents at DECH was significantly higher than for all inpatients at the hospital. The fact that there has been a global reduction in total days stay at both hospitals strongly suggests that the decline is due to a number of developments in the hospital sector, independent of the McAdam project (bed closures, for example), and also to the availability of EMH. **It is, therefore, stressed that the intention of presenting this information is not to imply a causality between the efforts of the CHC and a reduced number of patient days, but to show the total cost of providing health care to inpatients from McAdam.**

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there have been a number of changes in the hospital sector that are likely responsible for the reduction in inpatient days. Also, earlier discharges from the hospital and consequent reduced average length of stays have likely been facilitated by the expansion of home care services such as EMH.

Expenditures at the Facility have been reduced by \$130,157 or 10.3% from 1991/92 to 1995/96, mostly due to a reduction in non-physician staffing. It should be noted that the non-physician wage bill includes the salary of a clinical nurse specialist, who was hired on a temporary basis to "jump start" the community programing component of the model. The expiration of this two year contract will likely mean an even greater reduction in the wage bill of the CHC.

Although ambulance expenditures presented in Table 23 have markedly increased, they represent only a small share of the total expenditures. The escalation (55.9%) in ambulance costs have been more than offset by decreases in facility and inpatient expenditures.

While **Table 23** shows an expenditure reduction of 12.4%, it should be noted that just as some of this cost saving cannot be attributed directly to the CHC, there are benefits that have not been quantified and, subsequently, not included into the cost analysis. Specifically, as presented in **Section 4.4, Table 16**, a number of health promotion and disease prevention programs have been offered by the CHC. Although the CHC cannot be credited with initiating all of these programs, it can take credit for mobilizing the community and responding to many of the more pressing needs. Even though it is too early to conclude whether the health promotion efforts have been effective, the enhanced service should be taken into consideration, as well as other factors mentioned that were not quantified, when examining the net change in expenditures.

**Table 23: Total Cost Comparison in Constant 1991\$  
1991/92 versus 1995/96<sup>\*,†</sup>**

Item	1991/92	1995/96	Difference	% Change
Facility Expenditures (Table 19)	\$1,266,314	\$1,136,157	\$-130,157	-10.3%
Ambulance Expenditures (Table 21)	\$18,730	\$29,194	\$10,464	55.9%
Admissions Expenditures (Table 21a)	\$930,203	\$775,087	\$-155,116	-16.7%
<b>TOTAL EXPENDITURE</b>	<b>\$2,215,247</b>	<b>\$1,940,438</b>	<b>\$-274,809</b>	<b>-12.4%</b>

\* Data Source: DHCS, Financial Services, Hospital Services, Medicare, and Ambulance Services Units; McAdam Ambulance Service.

† Note: Since per diems for DECH and CCH for 1995/96 were estimated, total admission expenditures for 1995/96 have been estimated. Consequently, the total expenditure for 1995/96 will change once the actual per diem figures are substituted for the estimates.

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\* Data Source: DHCS, Financial Services, Hospital Services, Medicare, and Ambulance Services Units; McAdam Ambulance Service.

† Note: Since per diems for DECH and CCH for 1995/96 were estimated, total admission expenditures for 1995/96 have been estimated. Consequently, the total expenditure for 1995/96 will change once the actual per diem figures are substituted for the estimates.



## PART 5.0 SUMMARY and CONCLUSIONS

The McAdam CHC project was established in order to study the impact of providing primary health care services to residents living in a rural NB community. Among the questions to be answered through an evaluation were: (1) to what extent did residents use other health care facilities, primarily hospitals, prior to and during the time of the project; (2) to what extent did the utilization of primary care services result in changes in the overall cost of health care; (3) to what extent were services of all health providers coordinated in order to provide programming to meet community health needs; (4) what was the level of community and staff satisfaction; and (5) to what extent were health professionals able to collaborate within a multidisciplinary mode called "shared practice."

It is clear from this study that most of what was planned for McAdam has been implemented, though not without challenges. As expected with any new endeavour, the limiting factor in establishing components of the project has been the amount of time available to allow for the impact on utilization, costs and levels of understanding and acceptance to be measurable. In the short term (July, 1994 – March, 1996), changes in the operation of the model have resulted in a seemingly more efficient and effective service delivery. Through education efforts and involvement in the development and delivery of community programming, the health care team has achieved a clearer understanding of their respective roles as members of a collaborative, primary care service with a community outreach component. For the physicians, as reported in the *McAdam CHC Interim Evaluation Report*, while hesitant at the outset to embrace the "shared practice" concept, following approval of the practice protocols/guidelines for client visits and for the emergency service, they have developed a greater comfort level. Overall, the model has afforded a better quality working life for staff which, given regular working hours and skill-enhancing training, has provided a service that meets with community acceptance.

The triage and referral function is an important part of the model. It provides the nurse with an expanded role in decision-making, ensuring that the client's health care needs are met by the most appropriate service provider. Anecdotal accounts from the staff of health professionals, as well as the utilization data which show referral patterns between service providers, provide evidence that the interdisciplinary approach is understood. And though the chart audit did not in itself provide quantitative evidence for "shared practice" occurring, it did serve the useful function of spotlighting deficiencies in charting methods. Improvements in this function are presently underway.

In planning for the CHC, it had been suggested that other health providers serving this target population would use the Centre as the site of service delivery, and perhaps even co-locate their offices in the Centre. Public Health, FCSS Outreach, EMH and Mental Health were some of the potential users. To date, these service providers use the Centre to meet clients, though they have not relocated their offices there. As well, they are active members of the Interdisciplinary Action Committee and in that role help to identify potential programs/activities to meet needs in the area.

In relation to coordination of services among service providers, all health agencies report a positive working relationship with the Centre's staff, although Public Health has a concern that their

services are being duplicated. Examples of overlapping programs include prenatal training, and programs offered in the schools. However, it should be noted that in order to optimize the use of financial resources, Public Health only offers programs when a minimum number of participants are registered. This difference in the ability to offer programs has the effect of switching service delivery away from one sector (and one budget) of the health system and moving it to another sector.

Overall, the project has shown a net reduction of \$274,809, or a net change of -12.4%. Included in this figure are initiatives implemented through Region 3, that are independent of the strategies put in place for the CHC model. Since the cost analysis does not take into account the costs associated with EMH, social service delivery and public health activities in the area, the cost of health care is understated. Nevertheless, with the enhanced health promotion/prevention services to the area it may be speculated that the long term result of this model may be to reduce costs to the overall system. A controlled study of longer term would need to be designed to measure this possibility.

## PART 6.0 RECOMMENDATIONS

### *Generic*

1. Needs assessments provide important information on the health and behaviour of communities, and they are an important tool in the development of a primary health care mode of service delivery such as was piloted in McAdam. However, to be useful, assessments must be tailored to the target population, be representative of all ages and be administered at the time of year that will ensure the highest numbers of respondents.
2. Members of the "shared practice" team at McAdam stated that the lack of clarity in roles and responsibilities, and absence of understanding of the philosophy of "shared practice" hindered project development. Activities and training to prevent this confusion should be undertaken early in project planning and implementation.
3. Further to the above item, dedicated management in the person of a project coordinator, and a clinical nurse specialist to facilitate community programming are essential to ensuring coordination, planning and implementation of a change project.
4. To support the work of an interdisciplinary team, and to facilitate the triage function, health professionals should be physically located in near proximity in order to promote the exchange of information relative to management of clients and services.
5. Nursing staff in the McAdam model reported that working in two very different modes of service delivery (CHC and the nursing home) was not conducive to client case management nor to community program planning. Dedicated nursing staff would seem to be essential if these activities are to function effectively.
6. The practice protocols developed for the emergency service in McAdam did not, in the final analysis, reflect the most common presenting conditions. It becomes apparent that the reasons for using emergency services in a given facility should be studied *before* selecting the presenting conditions around which to develop practice protocols. This would also apply to selecting conditions best suited for collaborative practice in the clinical setting.
7. Changes in the utilization by target populations of emergency departments in neighboring facilities to a CHC can indicate the degree of acceptance of a change in the method of health delivery. In order to be able to measure this change following reorganization of a hospital facility to a CHC, the use of other emergency departments by target area residents should be tracked *before the change occurs* in order to obtain the necessary baseline data for comparison purposes.
8. Innovative and creative marketing strategies contributed to the general understanding and level of satisfaction of the public regarding the services offered at the McAdam CHC. To support a change in health service delivery, marketing through communication is essential if community participation and satisfaction are to be achieved.

*Specific to the McAdam project*

9. In view of the difficulties encountered with the chart audit, the re-formatting of chart information, and training on types of information to record would be indicated.
10. For the duration of the project, nurses were protected by Ministerial letter which allowed them to expand their roles according to the "shared practice" protocols without fear of legal prosecution. This was necessary in order to pilot the concept of a collaborative practice. Should the status of the project change from its present pilot designation, this should be reviewed.
11. Duplication of some services, coupled with philosophical differences among the different health professionals concerning the delivery of services, indicates that more collaboration and coordination efforts are needed between health service providers.

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**Appendix A.**  
**PARTICIPANTS**



**A. Steering Committee**

Ken McGeorge	(Chair, 1993-95), Region 3 Hospital Corporation
John McGarry	(Chair, 1995-96), Region 3 Hospital Corporation
John Burke	Health Management Services
Jim Carter	DHCS
Jean Castonguay	DHCS (1995-96)
John DiCaire	DHCS
Gerard Doucet	DHCS
Bonny Hoyt-Hallett	DHCS
Aline Saintonge	DHCS
Wally Waller	DHCS (1993-95)

**Resource to the Committee**

Kate Abblitt	Health Management Services (1993-94)
Carole Dilworth	DHCS
Beverley Greene	Region 3 Hospital Corporation
Nan Luke	DHCS
Dick Quigg	DHCS
Mary Shields	Health Management Services (1993-95)
Barbara Smith	Region 3 Hospital Corporation (1995-96)

**B. Evaluation Framework Development Committee**

Carole Dilworth	(Chair), DHCS
Chris Heisner	DHCS
Brigitte Maicher	DHCS
Mary Shields	HMS
Penny Short	Region 3 Hospital Corporation

**Resource to the Committee**

Shirley-Baisley Moffatt	McAdam Community Health Centre
Germaine MacKinnon	DHCS
Myrna Robinson	McAdam Community Health Centre
Advice from:	Nurses Association of New Brunswick (NANB) New Brunswick Medical Society

### **C. Evaluation Working Committee**

Carole Dilworth	(Chair), DHCS
Beverley Greene	Region 3 Hospital Corporation
Dr. Ray Pong	External Advisor, Laurentian University
Shannon Sanford	DHCS
Barbara Smith	Region 3 Hospital Corporation

### **Resource to the Committee**

Bonny Boudreau	DHCS
Frank Carroll	Mayor of McAdam
Paul Girouard	DHCS
Yvonne Greenlaw	Region 2 Hospital Corporation
Rev. Bill McLeod	Region 3 Hospital Corporation
Shirley Baisley Moffatt	McAdam Community Health Centre
Betty Nesbitt	Region 2 Hospital Corporation
Pam Rippin	Region 3 Hospital Corporation
Paul Seymour	DHCS
Lois Scott	DHCS

### **Technical Support**

Anne Allain	DHCS
Francine Boudreau	DHCS
Carol Rankin	Region 3 Hospital Corporation
Jill Ritchie	Region 3 Hospital Corporation



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**Appendix B.**  
**CORPORATE PLAN**

# Corporate Plan

## Health and Community Services

### Our Vision

*The Department of Health and Community Services  
is committed to the well-being of New Brunswickers.*

### Our Mission

From this vision emerges the following mission:

*To work with New Brunswickers in achieving well-being:*

- by promoting self-sufficiency and personal responsibility;
- by providing approved services as required.

### Our Principles

To be fulfilled, the mission implies adherence to eight principles.

*The department will:*

- provide services consistent with available resources;
- be efficient and effective in fulfilling its mission;
- provide services which are appropriate to need;
- implement selective programming;
- provide programs on an equitable basis;
- adopt a provincial planning framework with decentralized delivery;
- provide a coordinated approach to planning, design and delivery of programs and services; and
- be results oriented.

### Our Goals/Directions

The department is working towards five key goals/directions.

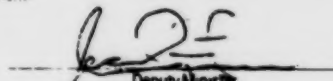
- Increase the number of years individual residents of New Brunswick live free of major illness, disability and handicap.
- Increase emphasis on promotion of well-being and prevention of social dysfunctioning.
- Assist individuals and families to achieve and maintain well-being.
- Promote the achievement and maintenance of a healthy physical and social environment.
- Provide equitable, affordable and appropriate health and community services for the citizens of New Brunswick.

### Our Values

Acknowledging the importance of its mission, the department espouses the following values.

*We Value:*

- the effective performance and competence of employees as the department's most important asset;
- an environment which challenges and rewards employees to enable them to function most effectively; they must feel part of a team, be active participants and receive recognition for their efforts;
- leadership by managers who have a commitment to the current and future well-being of New Brunswickers;
- managers with an open and responsive style who encourage direct two-way communication;
- loyalty to the department's mission, vision, goals/directions and objectives to facilitate their realization;
- treating the individual with dignity as fundamental to all departmental activities and interactions;
- responsibility and accountability as central to the functioning and management of the department.

  
Deputy Minister  
**New Brunswick**  
Health and  
Community Services

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**Appendix C.**

**TERMS OF REFERENCE FOR THE**

**EVALUATION WORKING COMMITTEE**

**TERMS OF REFERENCE**

**for the**

***MCADAM COMMUNITY HEALTH CENTRE EVALUATION COMMITTEE***

Program Analysis and Evaluation Unit  
Planning and Evaluation Division  
Department of Health & Community Services  
January 30, 1996

## BACKGROUND

The CHC in McAdam was established by the N.B. Department of Health and Community Services and Health Region 3 as a pilot project for the purpose of studying the feasibility of delivering primary health care in a rural New Brunswick community. The project was to target the 2300 people living in a 25 mile radius catchment area of the former hospital, which includes the village of McAdam and its surrounding parish.

Planning for the CHC followed closely on the heels of the closure of the 13 inpatient beds at the MacLean Memorial Hospital at the time of the N.B. hospital system reorganization in 1992. In addition to the closing of the hospital beds, there was also a significant decrease in staffing.

The CHC delivery model was designed with two main components in mind: the Health Promotion/Illness Prevention component and the Supportive/Rehabilitative/ Curative component. Under these two components, three modules were developed for service delivery. These are described briefly as follows:

**Module #1** is the Health Promotion/Illness Prevention component of the model. It is directed specifically to the community/family. The major strategy under this module is to plan, coordinate and carry out those activities that are judged to contribute to the health and social well-being of residents in the area. The activities are directly related to the specific needs identified in the Needs Assessment Study completed in the community in 1993. The vehicle for implementing this strategy is an interdisciplinary committee comprised of the professional staff at the CHC, health and social workers in the community, and community representatives.

**Module #2** is the Supportive/Rehabilitative/Curative component and in contrast to the above module, the focus is on the family/individual. In this module, primary care is delivered by an interdisciplinary approach described as "shared practice". In "shared practice", health professionals are encouraged to work together in a collaborative and cooperative manner as partners on the health care delivery team. They refer patients requiring on-going consultation and follow-up to the most appropriate service provider on the team. In the case of McAdam, that provider can be the nurse, the physiotherapist, the pharmacist, the dietitian or the doctor. The most appropriate member of the team is the designated case manager.



Coordinating mechanisms for "shared practice" include the co-location of the physician's office near that of the other staff members, centralized booking, and an integrated patient record. As well, practice parameters are developed to serve as the guide for instances when referral to other team members is appropriate.

**Module #3** (the Emergency/Observation 24 hour service) is also part of the Supportive/Rehabilitative/Curative component. The unique feature in this module is that nurses are legally permitted to assess, treat and discharge under certain well defined protocols for practice. These protocols have been developed in consultation with key stakeholder groups, i.e. the NB Medical Society and the Nurses Association of New Brunswick. Nurses can apply the defined protocols without standing orders or the co-signature of the physician.

Several administrative strategies were devised to enable the CHC to deliver care efficiently. First, the four key health professionals (shared practice nurse, physician, dietitian, and physiotherapist) were given on-site office space at the CHC.

Another strategy was to encourage the co-location of other community health and social services at the facility. It was felt that coordination and communication amongst disciplines would improve once all service providers were housed under the same roof. The public health nurse has a designated room in the Centre where patients are seen regularly. As well, the mental health professional is also seeing clients at the Centre. EMH nurses visit the Centre daily and use the facility to carry out their charting activities.

Establishment of the integrated record system was another coordinating strategy put in place in September, 1993. This method of recording progress notes has meant the "shared practice" team members all chart on the same patient record. This activity is viewed as an important factor in fostering an interdisciplinary approach to primary care delivery.

## OBJECTIVE

The initial planning of the CHC included a two phase evaluation. The first phase would focus on the first six months (July through December of 1994) of operation, while the second phase would follow after 18 months of operation. The evaluation was expected to address issues concerning utilization, cost, acceptance (professional and community), community involvement, shared practice, interdisciplinary (team) approach, and program development based on assessed needs. These issues of interest were framed into five evaluation goals contained in the evaluation framework. Phase I, the six month interim evaluation, was completed in May, 1995.

The Evaluation Committee will be responsible for implementing phase II of the evaluation; this will involve evaluating the performance of Health Centre after 18 months against the goals identified in the evaluation framework. The intended purpose of the evaluation report will be to provide information that will facilitate decision-making that will lead to optimal operation of the Health Centre.

## PROJECT PARAMETERS

### a. Evaluation Committee Organization

- The Committee will consist of the following members:

Carole Dilworth (Chair),	Senior Evaluation Advisor Planning and Evaluation Division, Department of Health and Community Services
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Bev Greene,	Region 3 Hospital Corporation
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Ray Pong (external),	Co-Director Northern Health Human Resources Research Unit Laurentian University
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Shannon Sanford,	Program Evaluator Planning and Evaluation Division, Department of Health and Community Services
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Barb Smith,	Assistant Director of Nursing Region 3 Hospital Corporation
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- Communication with the external consultant will be primarily via teleconferencing with a provision for two visits to Fredericton: one mid way through the project and one for the presentation of the final report to the steering committee. The consultant will provide professional guidance and advice to the committee throughout the completion of the project.

- Decision-making will be by consensus.
- Minutes will be recorded at all Committee meetings and distributed to all participants.

**b. Deliverables**

- The committee will submit a report to the McAdam CHC Steering Committee no later than June 15, 1996. All committee members including the external consultant will be present for the presentation.
- The final report will recognize contributors in the manner as per professional ethics regarding publication of intellectual property.
- All electronic versions of the report are to be in WordPerfect 5.1 format.

**c. Cost**

- The external consultant will invoice the Department of Health and Community Services for his services at an agreed upon price.

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**Appendix D.**

**PROJECT GOALS AND**

**EVALUATION FRAMEWORK**

**M'ADAM COMMUNITY HEALTH CENTRE  
EVALUATION STUDY**

**Framework**

**Goals**

**Evaluation Questions**

**Data Requirements**

**NB Department of Health and Community Services  
Planning and Evaluation Division**

**Original draft: January 28, 1994  
Revised: February 15, 1994  
March 1, 1994  
April 25, 1994  
May 13, 1994  
March 4, 1996**

## *Preface*

The attached document identifies the evaluation goals for the M<sup>c</sup>Adam Community Health Centre pilot project, the evaluation questions, and the data requirements needed to evaluate the success of this project.

This new form of health care delivery was established in M<sup>c</sup>Adam in July, 1994, and consists of three program modules, which are described as follows:

Module I, reflects the philosophy of the "shared practice" concept whereby health professionals work together as equal partners on a team to deliver health services. This concept is characterized by referrals among the team members according to established protocols, and joint participation in case management and planning to establish the best approach for assisting patients requiring on-going care.

Module II, is the Emergency room and Observation bed component of the health centre. Under this component, the nurse is allowed to assess, treat and discharge patients in the Emergency room in accordance with established protocols. The nurse can also determine if referral to the physician is required. This component of the emergency service is carried out by nurses who have received additional education certification relative to the shared practice protocols. For all other procedures and decisions, the doctor is the chief attendant.

The Observation beds have a 48 hour limit and are intended for the assessment and stabilization of patients with final disposition within that time period to another facility, returned home, etc.

Module III, reflects the philosophy of primary health care. It is based on the identification of the health and social needs of the community. In this module, there is a interdisciplinary approach by all service providers to meet those identified needs. Under this approach the team, which includes the professionals at the health centre, the community-based social, mental health and public health workers, and appointed community representatives work together to plan and promote specific promotion/prevention programs to enhance wellness in the community.

These modules are reflected, though not explicitly stated, in the five program goals which had been developed to guide the implementation of this project. For the purpose of the evaluation, the program evaluation team has "fit" the modules to the goals. Further, we have identified the questions that arise from the goals and have shown the data necessary to answer those questions. In some instances, such as Module II, the questions are positioned relative to the most appropriate goal. For instance, the questions addressing utilization of the Emergency Room and Observation beds have been placed under Goal 2 since they are the "medical" component of the model and a measure of their utilization is not addressed in any of the other project goals.



In the final analysis, the evaluation should offer information around the following specific subject areas:

- utilization
- cost
- acceptance (professional and community)
- community involvement
- shared practice
- interdisciplinary approach (team approach)
- program development based on assessed needs

The relationship of goals, modules and evaluation questions are shown in matrix form (Figure 1) on the last page of this document.

Finally, as a matter of record, a process (formative) evaluation was carried out after six months operation of the Health Centre. That study was completed in May, 1995. In the course of that evaluation, most of the data were manually collected. Since that time, the Hospital corporation has implemented the Meditech system in McAdam. The data off this system are more tightly defined, standardized and "cleaner" than before. Because of this, the outcome (summative) evaluation will reflect only those data collected and analyzed since April, 1995.

**PLANNING ELEMENTS FOR PROGRAM EVALUATION  
MCADAM COMMUNITY HEALTH CENTRE (CHC)**

**Evaluation Goal # 1:** To assess the success of the "shared practice" concept as it applies to the service delivery of health care to the residents of the catchment area of the MacLean Memorial Hospital in McAdam, NB.

**Desired Outcome:**

"Shared practice" is implemented and appropriately utilized by the Community and the staff (Module I, portion of Module II), and at no additional costs to the system.

**Strategies:**

- Co-location of the CHC Team
- One physical entrance to the Health Centre
- Integrated record system with multidisciplinary progress notes
- "Shared practice" practice parameters developed for hypertension and diabetes
- Emergency room protocols whereby nurses are able to see, treat and discharge patients within six categories of presenting conditions developed and implemented.

**AFTER 18 MONTHS**

**Question # 1**

To what extent are catchment area residents using the services of the McAdam physicians, nurses, physiotherapist and dietician.

**Key Data**

- total # patients seen by each service provider (trend):
  - a) # patients from within catchment area
  - b) # patients from outside catchment area
- # visits per person per service provider
- profile of consumers ex. age, sex

**Question # 2**

To what extent are residents self-referring, and for what reasons by general category?

- % self-referred and reason(s) for visit

<p><b><u>Question # 3</u></b></p> <p>a) Following the introduction of practice protocols for hypertension and diabetes, have repeat visits to the doctor for these conditions changed over the period of the study?</p> <p>b) What is the profile of repeat patients?</p>	<ul style="list-style-type: none"> <li>○ total # patients seen by doctor for repeat visit(s)</li> <li>○ reason for repeat visit</li> <li>○ profile of repeat patients ex. age, sex, disease categories compared with the profile of patients seen in the previous year.</li> </ul>
<p><b><u>Question # 4</u></b></p> <p>To what extent are appropriate referrals occurring between service providers.</p>	<ul style="list-style-type: none"> <li>○ evidence of appropriate referrals between service providers as determine by a review of a sample of charts by diagnostic categories. (The categories should be those for which the practice protocols were developed ex. hypertension and diabetes).</li> <li>○ opinion of health care professionals re: appropriate referrals taking place.</li> </ul>
<p><b><u>Question # 5</u></b></p> <p>To what extent has the case management type of planning approach been used for patients being seen on an ongoing basis by more than one team member?</p>	<p><b><u>Key Data</u></b></p> <ul style="list-style-type: none"> <li>○ evidence of regular team meetings (as per Appendix J of the Development Report).</li> <li>○ evidence of appropriateness of selection of the case manager. (ex. random chart audit)</li> <li>○ perception of team members as per: <ul style="list-style-type: none"> <li>• time for assessment and planning</li> <li>• extent of sharing of information, material</li> </ul> </li> </ul>

Question # 6

To what extent are nurses providing Emergency room services as intended by the following Emergency Room protocols?

- Minor burns
- Minor epistaxis
- Small open wounds
- Tetanus prophylaxis
- Anaphylaxis
- Minor sprains/strains

○ # patient visits that can be identified by the ER protocols.

○ # times nurses see, treat, discharge according to the new protocols (i.e. utilization of the protocols).

○ # times doctors are involved in treating ER patients that would fall under the protocols.

<b>Evaluation Goal # 2:</b> To assess the extent of utilization of the services at eh Community Health Centre, to describe impact on hospital institutionalization, and to determine associated costs to the Institutional Services Division of the Department of Health and Community Services.	
<b>Desired Outcome:</b> Reduction in hospital in-patient utilization and associated costs. (Modules II and III)	
<b>Strategies:</b> <ul style="list-style-type: none"> <li>• Physicians on-site at the CHC</li> <li>• 48 hr Observation beds for assessment and stabilization.</li> <li>• Increased public education re: health issues, use of drugs, etc.</li> <li>• Prevention/promotion programs to enhance wellness.</li> </ul>	
<b><u>Emergency/Observation Beds</u></b>  <b><u>Question # 1</u></b> What is the profile of ER utilization at the CHC?  Note: Pre-CHC ER visits data are not readily accessible.	<b>After 18 months</b>  <b><u>Key Data</u></b> <ul style="list-style-type: none"> <li>○ # ER visits by area residents by type, i.e. urgent, non-urgent, etc.</li> <li>○ # ER visits by persons living outside the catchment area.</li> <li>○ profile of consumers, ex. age, sex</li> </ul>
<b><u>Question # 2</u></b> Have catchment area residents increased their use of ER's at other hospital facilities following the changes in health service delivery at McAdam?	<ul style="list-style-type: none"> <li>○ # visits by area residents to other ER both pre-bed closure and CHC, ex. DECH, St. Stephen, Harvey, Oromocto.</li> <li>○ reasons for visit</li> </ul>
<b><u>Question # 3</u></b> To what extent and for what reasons are the Observation beds used?	<ul style="list-style-type: none"> <li>○ occupancy rate of Observation beds</li> <li>○ reasons for admission (admitting diagnosis)</li> <li>○ average length of stay (ALOS) in 12-hour increments</li> <li>○ # delays that exceed 48 hours and reasons</li> <li>○ # admitted for palliation</li> </ul>

<p><u><b>Question # 4</b></u></p> <p>What was the final disposition of the users of the Emergency/Observation beds?</p>	<ul style="list-style-type: none"> <li>○ % sent home</li> <li>○ % sent to hospital (identify which facility)</li> <li>○ % deaths (reasons, ex. terminal illness, accident, etc.)</li> <li>○ % other</li> </ul>
<p><u><b>Utilization of In-Patient hospital beds</b></u></p> <p><u><b>Question # 1</b></u></p> <p>To what extent has the rate and cost of hospital institutionalization of area residents changed since the reduction of beds and the introduction of the CHC model.</p> <p>Note for purposes of interpretation: Single Entry Point (SEP) was introduced in 1991, EMH was introduced in Sept. 1992 and; hospital beds at the MacLean Memorial Hospital were reduced in Dec. 1992.</p>	<ul style="list-style-type: none"> <li>○ Snapshot of utilization (per 1000 pop.) and cost of hospital in-patients beds by catchment area residents in fiscal years 1991/92 (SEP introduced), 1993/94 (SEP, EMH, reduced beds) and 1994 onward (SEP, EMH, CHC): <ul style="list-style-type: none"> <li>• Average length of stay in hospital facilities: <ul style="list-style-type: none"> <li>- total # separations</li> <li>- total # patients days</li> </ul> </li> <li>• Per diem costs per hospital facility</li> </ul> </li> </ul>
<p><u><b>Cost of Primary Health Care</b></u></p> <p><u><b>Question # 1</b></u></p> <p>What is the overall cost after 6 mos., 18 mos. of this model of health care delivery compared with the pre-bed (Dec. 1992) closure model?</p>	<ul style="list-style-type: none"> <li>○ on-site # FTE's pre-bed closure and CHC</li> <li>○ physicians salary vs. fee-for-service (history data)</li> <li>○ cost of residents using fee-for-service family physicians (see Goal # 5)</li> <li>○ operating expenses</li> </ul>



<b>Evaluation Goal # 3:</b> <b>To determine the effectiveness of the Community Health Centre in bringing about coordination and cooperation between the facility and other community-based service providers and agencies.</b>	
<b>Desired Outcome:</b> Effective working relationships are established between the CHC and community service providers. (Module III)	
<b>Strategies:</b> <ul style="list-style-type: none"> <li>• Co-location of services in the CHC facility.</li> <li>• Coordinated approach through the establishment of the Interdisciplinary Community Action Committee* to include the CHC professionals and community representatives.</li> <li>• Completion of a Needs Assessment which forms the basis of the planning approach.</li> </ul>	
<b><u>Question # 1</u></b> Has co-location of services occurred?	<b><u>Key Data</u></b> ○ documented evidence that co-location of health and community service groups has been achieved
<b><u>Question # 2</u></b> What has been the extent of cooperation between the team at the CHC and other service providers in the community such as government agencies (ex. Public Health, Human Resource Development, etc.), health advocacy groups (ex. Lung Association, etc.).	○ documented evidence that decisions of the Interdisciplinary Community Action Committee are implemented  ○ opinions of key informants regarding success of their role and its continuation

**\* Committee participants:**

- Interdisciplinary team from the CHC
- Community appointed representative
- Community Service Providers:
  - ex. . Mental Health Commission
  - . Public Health nursing
  - . FCSS Outreach

<b>Evaluation Goal # 4:</b> <b>To demonstrate that implementation of the Community Health Centre contributes to changes in awareness and practice of health related behaviours.</b>	
<b>Desired Outcome:</b> Improvement in the level of awareness and in the practice of health-related behaviours. (Module III)	
<b>Strategies:</b> <ul style="list-style-type: none"> <li>• Needs assessment study to identify community needs.</li> <li>• Health promotion and disease prevention programming initiated</li> </ul>	
<u><b>Question # 1</b></u> Based on the Needs Assessment study, what are the most important health needs for this catchment area? And having identified those, what programming has been implemented to meet those needs.	<u><b>Key Data</b></u> <ul style="list-style-type: none"> <li>○ record of health needs from Needs Assessment study</li> <li>○ # community programs established to meet health as per the Needs Assessment.</li> <li>○ evidence of implementation of other programs that address previously unidentified needs. Describe program, audience, attendance</li> </ul>
<u><b>Question # 2</b></u> To what extent has the health promotion/disease prevention programming made a difference in the health of the community?  Note: The Needs Assessment study should not be used as the sole guide for assessing this goal. The response rate was only 25%, and was skewed by over-response from the seniors population.  It also should be noted that results from prevention/promotion activities can require considerable time before community changes in behaviour are attained. In this study these changes may not occur within the time for this evaluation.	<ul style="list-style-type: none"> <li>○ opinions of program recipients regarding personal changes in health-related behaviour following receipt of CHC programming</li> <li>○ changes in level of awareness in knowing where to look for help</li> <li>○ opinions of key informants both through focus group sessions and from information provided from course/clinic evaluations</li> </ul>

<b>Evaluation Goal # 5:</b> <b>To assess the level of community acceptance of the Community Health Centre Model.</b>	
<b>Desired Outcome:</b> High level of demonstrated community acceptance	
<b>Strategies:</b>	
<u>Question # 1</u> What has been the level of acceptance by the community?	<u>Key Data</u> <ul style="list-style-type: none"> <li>○ letters of support or complaint to Region 3 Hospital Corporation, and/or to the news media by residents</li> <li>○ random sample to measure community opinion (see Process Evaluation)</li> <li>○ utilization of the facility: ex.    - attendance at organized clinics          - self referrals          - ER</li> <li>○ Community acceptance as per a community consultation process</li> </ul>
<u>Question # 2</u> To what extent are area residents using family practice physicians outside the CHC catchment area?	<ul style="list-style-type: none"> <li>○ # residents seeing other family practice physicians outside the area and for what reason (convenience, confidence, etc.)</li> </ul>

**Figure 1. Relationship of Evaluation Questions  
to the Project Goals, Modules and Subject Areas for the M'Adam CHC Pilot Study**

Subject Areas	GOAL 1 (Module I and II)							GOAL 2 (Module II and III)					GOAL 3 (Module III)		GOAL 4 (Module III)		GOAL 5	
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q1	Q2	Q1	Q2
Utilization	✓	✓	✓					✓	✓	✓	✓	✓	✓			✓		✓
Acceptance Professional and Community	✓	✓	✓	✓	✓	✓	✓		✓				✓	✓	✓	✓	✓	✓
"Shared Practice"		✓	✓	✓	✓	✓	✓											
Coordinated Approach to Planning					✓								✓		✓			
Program Development								✓		✓					✓	✓	✓	
Staff Development																		
Cost												✓						✓

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**Appendix E.**  
**PRACTICE PROTOCOLS**

Approved  
May 1995

GUIDELINES FOR THE TREATMENT  
OF  
UNCOMPLICATED ESSENTIAL HYPERTENSION  
(ADULT - 18 years +)  
M<sup>c</sup>ADAM COMMUNITY HEALTH CENTER





## DEFINITION

## Uncomplicated Essential Hypertension (adult)

## HYPERTENSION

The diagnosis of hypertension in adults is confirmed when the average of two or more diastolic BPs on at least two subsequent visits is 90 mmHg or higher, or when the average of multiple systolic BPs on two or more subsequent visits is consistently greater than 140 mmHg.\*

## UNCOMPLICATED

In uncomplicated hypertension symptoms of target organ involvement are not present:

- a) symptoms of angina pectoris
- b) symptoms of congestive heart failure
- c) symptoms of cerebral ischemia or stroke syndrome
- d) severe headaches, nausea and vomiting
- e) alterations in level of consciousness

## ESSENTIAL

## DIFFERENTIAL DIAGNOSIS

- A. Headaches, dizziness from another cause, not hypertension.
- B. Secondary hypertension
  - 1. Systolic hypertension
    - a) Arteriosclerotic vascular disease
    - b) Hyperthyroidism
    - c) Anxiety
  - 2. Diastolic hypertension
    - a) Renal disease
    - b) Coarctation of aorta
    - c) Pheochromocytoma
    - d) Cushing's syndrome

\* From: The 1984 Report of the Joint National Committee on Detection, Evaluation and Treatment of High Blood Pressure; Nurse Practitioner, July 1985.

## REFERRALS

## 1. DIETITIAN

Non-pharmacologic management alone is appropriate in patients whose diastolic BP < 95 mmHg, who are at low risk for cardiovascular disease and have no hypertensive target organ damage.

- a) Weight reduction (if indicated).
- b) Weight control - counsel re the importance of in the long term success of the treatment regime.
- c) Salt restriction - approximately 2g sodium daily (may be altered depending on the patient's socioeconomic status, ADL's and comprehension).
- d) Alcohol consumption - decrease to not more than 2 drinks/day, i.e. 2 oz liquor, 24 oz beer, 8 oz wine.

## 2. NURSE

- a) Teaching - use of and action of medications (if on drug therapy)  
- lifestyle choices including risk factors (e.g. smoking, exercise, stress, alcohol)
- b) Assessment - of new complications  
- for side effects of medications (if on drug therapy)  
- compliance to treatment regime
- c) Maintenance - routine BP checks as per protocol  
- booking Lab work as per protocol

## 3. MENTAL HEALTH (optional)

- counselling in stress management if stress is assessed to be a significant factor in the successful management of the patient.

## 4. PHYSIOTHERAPIST (optional)

- a) Assessment - of physical conditioning re exercise prescription (in consultation with attending physician)
- b) Teaching - safety factors with exercise, warning signs
- c) Maintenance - if indicated, after exercise program is set up

## 5. PHYSICIAN

- If BP < 150/90 mmHg - every 6 months for 1 year, then once a year indefinitely
- If BP remains elevated or returns to > 160/95 mmHg
- Patients with significant side effects to medications
- Patients displaying complications\* related to hypertension
- Patients displaying new symptomology

\* Complications: angina, transient cerebral ischemia or stroke syndrome, renal disease, complications of therapy.

## ASSESSMENT RELATED TO DRUG THERAPY

DRUG	SUBJECTIVE	OBJECTIVE
1 DIURETIC	<ul style="list-style-type: none"> <li>- calf/leg cramps, weakness, fatigue, apathy, confusion (hypokalemia)</li> <li>- thirst, decreased sweating, fever, weakness, confusion (hyponatremia)</li> <li>- weakness, numbness, tingling, decrease in heart rate, listlessness (hyperkalemia)</li> <li>- reduced libido</li> <li>- joint pain (?gout)</li> <li>- polyuria, polydipsia, weight loss (diabetes)</li> </ul>	<ul style="list-style-type: none"> <li>- orthostatic hypotension</li> <li>- serum potassium at 1 month and q6 months thereafter</li> <li>- uric acid level at 3 months then q1 year (or when joint pain develops)</li> <li>- pc glucose at 3 months and q1 year thereafter</li> </ul>
2 BETA BLOCKERS	<ul style="list-style-type: none"> <li>- fatigue, lethargy</li> <li>- depression</li> <li>- nausea</li> <li>- shortness of breath</li> <li>- impotence</li> <li>- nightmares, excitement</li> </ul>	<ul style="list-style-type: none"> <li>- heart rate &gt; 80/min. patient may not be blocked at current dosage or may not be compliant</li> <li>- chest assessment</li> </ul>
3 CALCIUM CHANNEL BLOCKERS	<ul style="list-style-type: none"> <li>- peripheral edema</li> <li>- dizziness/lightheadedness</li> <li>- nausea</li> <li>- flushing</li> <li>- tachycardia</li> </ul>	<ul style="list-style-type: none"> <li>- decreased BP standing and sitting</li> <li>- peripheral edema</li> <li>- heart rate</li> </ul>
4 ACE INHIBITORS	<ul style="list-style-type: none"> <li>- chronic, dry cough</li> <li>- facial and/or peripheral edema</li> <li>- headache</li> <li>- dizziness/lightheadedness</li> <li>- rash</li> <li>- shortness of breath</li> <li>- sore throat</li> <li>- taste alterations</li> </ul>	<ul style="list-style-type: none"> <li>- orthostatic hypotension (BP sitting and standing)</li> <li>- chest assessment</li> </ul>
5 RESERPINE	<ul style="list-style-type: none"> <li>- nasal stuffiness</li> <li>- depression</li> <li>- epigastric pain</li> <li>- impotence</li> <li>- melena</li> </ul>	<ul style="list-style-type: none"> <li>- stool occult blood, Hgb and Hct if c/o melena and or epigastric pain</li> </ul>

**LAB STUDIES SUMMARY**

Routine lab studies: to be booked by the nurse as per protocol; lab studies other than routine to be ordered by the attending physician.

**Prior to treatment:**

- |              |                 |
|--------------|-----------------|
| - Hgb/Hct    | - urinalysis    |
| - BUN        | - cholesterol   |
| - creatine   | - triglycerides |
| - pc glucose | - uric acid     |
| - ECG        | - electrolytes  |

**At one (1) month (if drug therapy initiated):**

- electrolytes

**At three (3) months (if drug therapy initiated):**

- electrolytes
- pc glucose
- uric acid

**At six (6) months (if drug therapy initiated):**

- electrolytes

**Annually (one year intervals; if drug therapy initiated):**

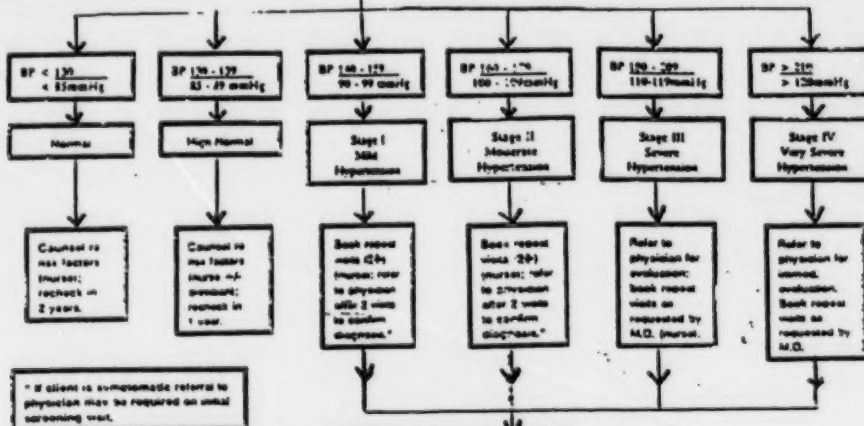
- |                |                 |
|----------------|-----------------|
| - electrolytes | - cholesterol   |
| - BUN          | - triglycerides |
| - creatinine   | - uric acid     |
| - pc glucose   | - ECG           |
| - Hgb          |                 |
| - Hct          |                 |
| - urinalysis   |                 |

## CLIENT ASSESSMENT

\* Absence of symptoms is not an indication of severity of hypertension.

**Signs:** Depends on cause of hypertension, duration, severity, and degree of effect on target organs; assessment to include BP sitting and standing, pulse (all peripheral), auscultation for lung and heart sounds.

**SYMPTOMS:** Depends on the stage (mild - very severe) and degree of effect on target organs. May include: headache (not eyes), dizziness, fatigue, CHF, stroke, cerebral ischemia, nausea and vomiting, disturbance in LOC, visual disturbances, SOB.



## MEDICAL EVALUATION

BP < 160 / < 90 mmHg

Classic BP > 95 mmHg  
Classic BP > 90 mmHg & evidence of target organ damage  
Individual therapy should take into account the whole picture and any other disease processes and/or risk factors including family history e.g. diabetes, hyperlipidemia, CAD, CVD.  
LV Hypertrophy or renal dysfunction present.

## NONPHARMACOLOGICAL MANAGEMENT

- Refer to dietitian: weight control, salt/sodium consumption.
- Refer to nurse: counselling re lifestyle and risk factors. BP checks - 1/week for 3 wks, q2wks for 1 month, q1month for 3 months, q6months indefinitely.
- Refer to mental health: stress management as indicated.
- Refer to physiotherapy: assessment re physical ability & exercise prog.
- Refer to physician: 1. Non-symptomatic; 2. BP > 160/90 on 2 occasions, visit; 3. Complications; 4. BP < 160/90 - follow for 1 yr, then q1year.

## PHARMACOLOGICAL MANAGEMENT

## STEPPED CARE APPROACH

- Diuretic
- Beta blocker
- Ca channel blocker
- ACE inhibitors
- Vasodilator
- Sympatholytic
- Peripheral sympatholytic inhibitors

1. No response or unsatisfactory response recorded.  
2. Increasing dosage of first drug  
3. Substituting another drug  
4. Combination therapy (see page 3)  
5. Referred to specialist (see page 3)  
6. Investigation for secondary hypertension

## Response to initial drug therapy:

## Successful

- BP well controlled for 1 year and lifestyle changes include possible success in nonpharmacological management or reduction in drug therapy.
- Step Down Therapy
- Reduce dosage of drug or drugs ordered. Reduce combination to single drug therapy. Consider trial of nonpharmacological therapy.

Refer to dietitian: weight and diet maintenance.

Refer to nurse: assessment of compliance; BP checks (frequency during step down therapy by order of physician)

## Unsuccessful

## Combination Therapy (most common combinations)

- Diuretic + Beta blocker
- Diuretic + ACE inhibitor
- Diuretic + Ca channel blocker
- Ca channel blocker + ACE inhibitor

Triple Drug Therapy may be considered if other combination therapy has been unsuccessful.

Referral to specialist may be considered depending on severity of hypertension, persistence in spite of combination drug therapy, presence of complications, presence of other medical problems.

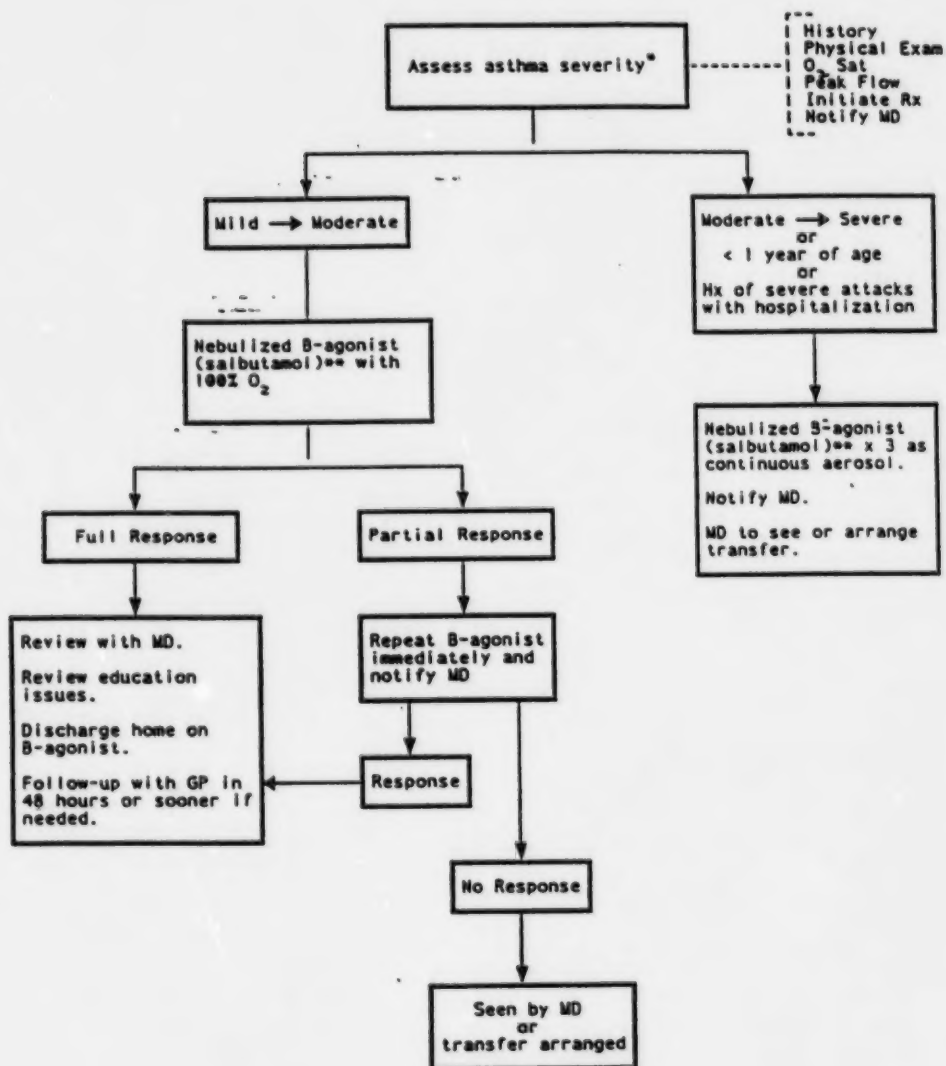


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REGION 3 HOSPITAL CORPORATION  
McADAM COMMUNITY HEALTH CENTRE

PROTOCOL FOR MANAGEMENT OF PAEDIATRIC ASTHMA  
WHEN PHYSICIAN NOT ON SITE



\* Use definitions on page 1 of Shared Practice Protocol  
\*\* Dose of salbutamol 0.03 ml/kg in 2 cc normal saline

## McADAM COMMUNITY HEALTH CENTRE

### SHARED PRACTICE PROTOCOL FOR MANAGEMENT OF PAEDIATRIC ASTHMA

Any child with three or more episodes of wheezing and/or dyspnea should be considered to have asthma until proven otherwise.

Exacerbations of asthma are potentially life threatening. Therefore, treatment should be initiated as soon as possible, even before the entire assessment is completed. Patients must be reassessed frequently to monitor progress.

#### GOALS

- to prevent and control symptoms
- to enable the child to live as normal a life as possible
- to decrease school absenteeism
- to normalize lung function
- to limit drug side effects

#### CLINICAL ASSESSMENT OF ACUTE ASTHMA

Thorough history must be obtained in all cases but treatment takes priority over assessment:

- duration and severity of symptoms
- precipitating factors - URI, cold, exercise, cigarettes smoke, stress, allergies, fumes, medications, eg ASA, beta blockers
- previous hospitalizations, ER visits, respiratory or ICU care, previous oral or inhaled steroids
- previous history of anaphylaxis
- medication history - time of last dose

#### PHYSICAL EXAMINATION

- wheezing may be absent (beware of silent chest) cough, SOB  
tachypnea, tachycardia, anxiety, restlessness

Tachypnea - infant > 60/minute  
- preschool > 40/minute  
- school age > 30/minute

#### Mild:

- nocturnal cough
- SOB on exertion
- increased use of B-agonist
- good response to B-agonist
- O<sub>2</sub> sat > 94 %
- PEFR/FEV > 75% predicted or best

#### Moderate:

- normal mental status
- speaks in short sentences
- SOB at rest
- only partial relief with B-agonist

Page two

- requires 3 agonist > 94 h
- O2 sat. 92-95%
- PEF/FEV1 50-75% predicted or best

Severe:

- altered mental status
- difficulty speaking, feeding
- laboured respirations
- persistent tachycardia
- no relief with usual doses of Beta agonists at usual doses
- O2 sat < 92%, PEF/FEV
- PEF/FEV1 < 50% predicted or best

Near death:

- exhausted, confused
- diaphoretic, cyanotic
- apnoea
- decreased respiratory effort
- heart rate decreases
- O2 sat < 80%
- if near death or deteriorating needs intubation

Unresponsive:

- rule out pneumothorax or upper airway obstruction
- consider alternative drugs: IV Beta Agonists, inhalational anaesthetic agents.

Cyanosis, use of accessory muscles, indrawing tracheal tug indicate moderate or worse disease.

Asymmetrical air entry may indicate a pneumothorax or atelectosis due to mucous plugging.

Spirometry and O2 saturations are not always accurate predictors of severity.

Note:

- Administer all nebulizers with oxygen
- All patients should receive humidified oxygen by face mask or nasal prongs and fluid replacement as necessary.
- Patients with partial or incomplete response require several hours of continued therapy under close observation. If not feasible or no physician present, transport. All patients with severe asthma will require admission, therefore transport.
- Admission recommended if inadequate response to three doses of bronchodilators or relapse occurs in less than one hour post treatment.

Page three

**Discharge:**

- Good response to therapy and similar therapy available at home
- No relapse with observation two to three hours post treatment
- Spirometry > 75% predicted/best, Oz sat > 9

**Maintenance Therapy of Asthma**

**Patient Education:**

- Educate patient and family re nature of asthma, trigger factors, aggravating factors, methods of treatments, appropriate administration of medications, (MDI, spacer, nebulizer, powder) use of peak flow meter
- Role of relieving medication verses preventative medication (3 agonists verses anti-inflammatories)
- When to seek medical advice
- Signs of respiratory distress

**Control of the environment**

- Avoidance of environmental allergies
- "desensitizing" the home
- Role of second hand smoke
- Role of pets
- role of allergy testing
- desensitizing the home

Referrals to physicians, pharmacist, dietician, or social worker as required.

**Medications**

Exercise induced asthma - 2-3 puffs of salbutamol 5 - 10 minutes before exercise. Trial of inhaled steroids or Nedocromil may be useful.

B agonists - salbutamol drug of choice for acute asthma. However, the need for regular use implies poor control.

Anticholinergics - Ipratropium provides additional bronchodilation in acute asthma, may be useful where B agonists are insufficient or not tolerated.

Theophylline - Used less commonly now due to other, better drugs. Narrow therapeutic index. May be of value in chronic asthma.

Anti-inflammatories - Inhaled corticosteroids: "gold standard"

- not for acute attacks
- need for regular use
- treatment, not a cure

Page four

- reduce need for B agonists and oral steroids
- use with spacer if MDI used
- prevention of exercise induced asthma

Systemic Steroids - used in moderate to severe attacks

- use IV if patient unable to tolerate PO route

Sodium Cromoglycate - anti-inflammatory

- useful as a trial if bronchodilator alone not effective

Nedocromil Sodium - similar to sodium cromoglycate

- prophylaxis in exercise induced asthma

When to add Prophylactic Rx

- > six acute exacerbations per year
- history of severe exacerbation
- > two hospitalizations per year
- > two to three days absenteeism per month
- inability to participate in normal sports and activities
- sleep frequently disturbed by asthma
- persistent decreased pulmonary function FEV<sub>1</sub> < 70% predicted value





# Presenting Signs and Symptoms

Weight loss, fatigue, weakness, polyuria, polydipsia, polyphagia, blurred vision, decreased vision, paraesthesia, numbness, weakness, diarrhoea, abdominal cramps, impotence, vaginal itching, skin infections, skin lesions not healing, foot ulcers.

Note: Many patients with known diabetes have no symptoms of diabetes or respond negatively to inquiries on the above symptoms.

## Clinical Assessment by Physician/Nurse

History including Presenting Complaints  
Physical Examination  
Capillary glucose (random)  
Urinalysis for ketones

Random capillary glucose  
> 11.1 mm

YES

Refer to  
Diabetic Team  
(MD, Nurse, Dietitian)

NO

Random capillary glucose  
8.9 - 11.1 mm

Inform patient  
Counsel re risk factors  
Follow-up in 6 mo  
(ac & pc capillary  
glucose)

Repeat capillary glucose  
within 24 hours  
8.9 - 11.1 mm

AC & PC venous plasma  
glucose

AC glucose 6.4 - 7.7 mm

AC < 6.4 mm  
Does Not Have Diabetes Mellitus

Refer to Nurse

APPROVED MAC  
95/02/01

AC glucose < 7.8 mm  
2 hour < 7.8 mm  
30,60,90 min < 11.1 mm

Consider 75g oral  
glucose tolerance  
test (OGTT)

ac glucose < 7.8 mm  
2 hour 7.8 - 11.1 mm  
30,60,90 min > 11.1 mm

AC ≥ 7.8 mm  
Does Have Diabetes Mellitus if  
≥ 7.8 mm on 2 occasions.

ac glucose < 7.8 mm  
2 hour ≥ 11.1 mm  
30,60,90 min ≥ 11.1 mm

Book ac & pc  
venous plasma glucose

Refer to  
Diabetic Team  
(MD, Nurse, Dietitian)  
(see Page 2)

Diet Counselling

Modification of risk factors

Repeat ac & pc  
venous plasma glucose  
Hb A1C 6 mos.

## DIABETES CLINICAL GUIDELINE SHARED PRACTICE

REGION 3 HOSPITAL CORPORATION

MCADAM COMMUNITY HEALTH CENTRE

### REFERRAL TO PHYSICIAN

- A) All new diabetics and patients suspected of having diabetes.
- B) All patients with blood glucose concentrations greater than 400 mg per 100 ml (>22) and/or ketosis
- C) All patients who show signs or symptoms of being out of control
- D) All patients who show signs of new or worsening complications
- E) Stable Type I diabetics (IDDM), every six months and stable Type II diabetics (NIDDM), once a year.

### REFERRAL TO SPECIALISTS

Diabetic patients with:

- compromised metabolic control
- heart disease
- refractory hypertension
- retinopathy
- nephropathy
- neuropathy
- foot problems
- pregnancy

### FOLLOW-UP VISITS

All visits- M.D., Nurse, Dietitian,

- assess metabolic control
- evaluate coping
- review management plan
- assess pertinent problems and refer to appropriate member of H.C. team

Every 4 - 6 months - M.D.:

- history & physical (update)
- assess weight, BP, feet
- ac +/- pc glucose, glycosylated Hb
- referral to H.C. team member  $\pm$  specialist as required

Annual - M.D.:

- history and physical - assess weight, BP, feet
- ac glucose, Hb A1C, triglycerides, cholesterol, creatinine, urinalysis, ECG, TSH.  $\pm$  microalbuminuria (if needed) (Booked by nurse and completed prior to annual visit with M.D.)

Referral to Health Center Team member  $\pm$  specialist as required

Notes:

Referral to M.D.

- A) Initial evaluation prior to treatment:
- 1) Eye Examination
  - 2) Examination of peripheral vascular system
  - 3) Examination of nervous system
  - 4) Urinalysis, BUN, creatinine, ECG, cholesterol, triglyceride levels, Hb A1C
- B) Diet - REFERRAL TO DIETITIAN
- C) Treatment initiated - oral/insulin
- D) Institute Formalized Diabetic Teaching Program and quarterly Diabetic Team Conference

Refer to Nurse

Visits glwk x 5

Stable patients should be seen regularly depending on teaching needs, adequacy of control, level of complications, upon completion of formal teaching program

Review wt, diet, exercise and medication at every visit

Refer to Dietitian/Physio/M.D. as problems require otherwise "

M.D. (Stable Type I - q 6 mos  
(Stable Type II - q 12 mos



**Region 3 Hospital Corporation**  
**McAdam Community Health Centre**  
**Case Management Protocol**

**Policy:**

Formal and informal case conferences will be held by the health care team for purposes of co-ordinating and evaluating client care. Records will be kept to monitor conferencing that occurs both formally and informally within shared practice.

**Procedure:**

1. Informal case conferences are recognized as an important contribution to the success of shared practice. Client's concerns are immediately addressed and it is critical not to create rituals that discourage or obstruct the efficiency of the system. Practitioners will be asked to document informal conferences on the progress notes. For the duration of this project, practitioners are also asked to maintain a separate ledger reflecting the number of informal conferences and the health providers involved.
  
2. Three identified shared practices with specifically developed protocols concern clients with diabetes, hypertension or paediatric asthma. Expected outcomes are identified within each of the protocols. In each of these groupings, clients in shared practice will be centrally registered. Clients in these registries will be reviewed on a biannual basis by a nurse case manager. Clients who deviate from the expected outcomes will be reviewed during formal conferences. This will enhance early identification of client difficulties and evaluation of the appropriateness of the shared practice protocols.



(2)

3. Formal case conferences will be arranged on a monthly basis in consultation with health care providers. The agenda will be generated from a number of sources.

a) Client or family request. Client/family members may be invited to participate in the conference. It is expected and hoped that as the community becomes more aware of partnering with health care providers that families may request this type of forum.

b) Protocol review by shared practice nurses. (See #2).

c) Challenging client situations that present that are not part of the pilot shared practice protocols. Exemplars could include clients who are served by EMH, Outreach services, pregnancy, etc. All health care providers within the health centre are encouraged to identify cases that could be opportunities to learn and evaluate both the appropriateness and effectiveness of the health care system. The Community Development Nurse will assist the Health Centre in identifying cases.

4. The Community Development Nurse will assist the Shared Practice Nurse(s) in organizing the case conferences and in monitoring the auditing of informal case conferences. Family members will be aware of the conference and may be invited to participate. Should they not attend but have comments, these will be appropriately relayed. The health care provider who is to contact the family will be identified on an individual basis during case selection. All health care providers who have been involved in care delivery will be informed of the review and invited to participate. Discussion within the conference will be strictly confidential, however should the conference identify a concern or recommendation about health care, this will be relayed appropriately. The conferences will be chaired by the nurse case manager.

5. A record will be kept by the Conference Chair of the cases reviewed, those invited to attend, those who attended, summary comments and further action if any.

## MacLEAN MEMORIAL HOSPITAL

### GUIDELINES FOR THE EMERGENCY TREATMENT OF ANAPHYLAXIS

**Definition:** A hypersensitivity reaction usually occurring within seconds to minutes after exposure to an antigen. The reaction ranges from mild, self-limited symptoms to rapid death.

**Etiology:** The most common agents associated with anaphylaxis include the following: antibiotics, biologicals (nonhuman sera, gamma globulin, vaccines), local anesthetics, aspirin, hymenopteran stings (bee, yellow jacket, wasp, hornet), allergic extracts (skin testing solutions), foods (especially eggs, nuts, shellfish), and intravenous narcotics (heroin).

**Clinical features:** Anaphylaxis is usually characterized by some or all of the following signs and symptoms. The sooner symptoms develop after the initiating stimulus, the more intense the reaction.

- |                       |                                     |
|-----------------------|-------------------------------------|
| • Generalized flush   | • Vomiting                          |
| • Urticaria           | • Wheezing **                       |
| • Paroxysmal coughing | • Cyanosis **                       |
| • Severe anxiety      | • Shock **                          |
| • Orthopnea           | • Respiratory and Cardiac Arrest ** |

#### TREATMENT: \*\*

#### ADMINISTER IMMEDIATELY

##### 1. Aqueous epinephrine (Adrenalin) 1:1000.\*

- Pediatric dose: 0.01 ml per kg (0.005 ml per lb); maximum single dose, 0.3 ml.
- Adult dose: 0.3 - 0.5 ml.

Inject dose (a) or (b) subcutaneously into the upper arm and massage the area or intramuscularly.

##### 2. Follow the Emergency Room Protocol for Emergent patients:

- Notify Physician.

**NOTE:** If there is no Physician on call in McAdam, notify DECH Emergency Room for instructions and prepare for immediate transfer.

##### While waiting for orders:

- Maintain airway, administer oxygen 100% by mask to maintain O<sub>2</sub> saturation at 95%, or whatever oxygen concentration needed to maintain O<sub>2</sub> saturation greater or equal to 95%. Verify order with the physician.
- Start IV of N/S with #18 angiocath (#16 or #14 for shock) and obtain rate from Physician.

**NOTE:** If the patient is in shock, administer an IV bolus of 20 cc per kilogram of weight. Recheck BP, and repeat bolus if the patient is still in shock.



**MacLEAN MEMORIAL HOSPITAL**

**EMERGENCY ROOM**

**NURSING PROTOCOL**

**MINOR BURNS**

**NAME:**

**ADDRESS:**

**PHONE #**

**MEDICARE #**

**DEFINITION:** Thermal injuries to the skin no larger than the palm of the patient's hand which can be classified as first degree (partial thickness) or superficial second degree (partial thickness). See diagram on reverse.

1. **First Degree:** Involving only the epidermis. It is red in colour and can be quite painful. Usually heals in a few days without scarring.
2. **Superficial Second Degree:** Involving the epidermis and superficial dermis. It is reddened with blisters that continue to increase in size, and is usually the most painful type of burn. The blisters may not develop until several hours after the burn is sustained. Usually heals in 10 to 14 days and may have some discolouration

**NOTE:** Deep second degree involves the epidermis down to the deep dermis and third degree the epidermis, dermis and beyond. Deep second degree and third degree burns should be referred to the physician.

**ETIOLOGY:** Contact with thermal, chemical or electrical sources. The degree of damage depends on the duration of exposure and the source. Scalds generally cause second-degree burns. whereas flame or hot metal may cause third-degree burns.

**TREATMENT:**

1. Apply room temperature, sterile compresses to minor burns within 30 minutes of the injury.
2. Clean gently with sterile normal saline.
3. Leave blisters intact but may perform simple debridement of open blisters.
4. a) **First degree burn:** Cover loosely with sterile dressing to protect. b) **Second degree burn** Cover burned area with polysporin ointment, telfa and a bulky gauze dressing.
5. Follow tetanus protocol for second degree burns.
6. Advise the patient to take ASA or Acetominophen (or their usual over the counter pain medication) as per package instructions for pain.

**REFERRAL TO PHYSICIAN:**

1. All patients with a history of smoke inhalation. (Treat as Emergent)
2. All deep second and third degree burns regardless of size.
3. All burns larger than the size of the patients palm.
4. All facial and neck burns.
5. All perineal burns.
6. All chemical and electrical burns. (NOTE: Flush all chemical burns with a cool sterile solution while waiting for Physician orders.)

**FOLLOWUP:**

1. **First degree burn:** Return to Emergency if blisters develop.
2. **Second degree burn:** Return to Emergency every twenty-four hours for dressing change.

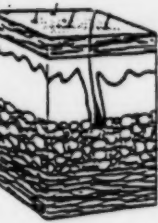
# MINOR BURNS

## GUIDELINES FOR ASSESSMENT

SUBJECTIVE	OBJECTIVE		
Record in the notes:	• Record size, location and appearance of burn.		
• How the burn occurred.	• Assess to determine possibility of inhalation injury:	YES	NO
• Type of burn: flame, scald, sun, etc.	- Burnt nasal hairs		
• If flame, determine possibility of smoke inhalation.	- Smoky colour in pharynx		
• What first aid has been applied.	- Dyspnea, hoarseness		
	- Smoky smelling breath		
• Complicating medical conditions.	• If possibility of smoke inhalation: O <sub>2</sub> Saturation.		

## ELABORATE POSITIVE FINDINGS

First degree  
Partial thickness



Skin reddened

Second degree  
Partial thickness



Blisters

Third degree  
Full thickness



Charring

Epidermis  
Dermis  
Fat  
Muscle

DATE:

TIME:

SIGNATURE:

MacLEAN MEMORIAL HOSPITAL

EMERGENCY ROOM

NURSING PROTOCOL

SMALL OPEN WOUNDS

NAME:

ADDRESS:

PHONE #

MEDICARE #

**DEFINITION:** Lacerations, scratches and abrasions that:

1. Are NOT located on the face.
2. Do NOT penetrate the subcutaneous tissues (see diagram on reverse). Wounds that penetrate the subcutaneous tissues will gape open indicating the need for suturing.
3. Are NOT associated with functional disturbance, that is, not involving tendons, ligaments, vessels, or nerves.
4. Have NOT been made by a grossly contaminated object.
5. CAN be easily debrided using a soft cloth.
6. Lacerations ARE LESS THAN 2 cm and ARE clean so they can be easily approximated using adhesives.

**NOTE:** Wounds which do not fall into the category as defined above, should be referred to the physician.

**ETIOLOGY:** Any of innumerable objects that could sever the skin.

**TREATMENT:**

1. Clean with warm saline or 1/2 strength hydrogen peroxide using a soft face cloth or sterile gauze, making sure that dirt and foreign bodies have been removed.
2. For small lacerations, pull together edges of the laceration with a butterfly adhesive.
3. Cover with a loose dressing that will keep out dirt and protect the wound from trauma.
4. Follow tetanus prophylaxis protocol.

**REFERRAL TO PHYSICIAN:**

1. All wounds not meeting the definition criteria (see Definition, above).

**FOLLOWUP:**

Return to Emergency in 24 hours for assessment or sooner if there is any sign of redness, pain, heat, or discharge.



## SMALL OPEN WOUNDS

### GUIDELINES FOR ASSESSMENT

SUBJECTIVE	OBJECTIVE
<ul style="list-style-type: none"> <li>Record in the notes: Description of where and how injury happened.</li> </ul>	<ul style="list-style-type: none"> <li>Record in the notes: Extent of injury, contamination, active bleeding, infection.</li> </ul>
<ul style="list-style-type: none"> <li>Time duration since injury.</li> </ul>	<ul style="list-style-type: none"> <li>Observe as patient is requested to move injured area through active range of motion (tendon/muscle evaluation).</li> </ul>
<ul style="list-style-type: none"> <li>History of possible foreign body in wound.</li> </ul>	<ul style="list-style-type: none"> <li>Observe and palpate area distal to injury to evaluate neural intactness, bone injury, foreign body, arterial and venous flow.</li> </ul>
<ul style="list-style-type: none"> <li>Complicating medical conditions, e.g diabetes, bleeding/clotting disorder.</li> </ul>	



### ELABORATE POSITIVE FINDINGS

Epidermis \_\_\_\_\_

Dermis \_\_\_\_\_

Subcutaneous fatty tissue \_\_\_\_\_

DATE:

TIME:

SIGNATURE:

MacLEAN MEMORIAL HOSPITAL

EMERGENCY ROOM

NURSING PROTOCOL

MINOR STRAINS AND SPRAINS

NAME:

ADDRESS:

PHONE #

MEDICARE #

**DEFINITION:** Minor injury to a joint where the nature of the trauma was mild, resulting in minimal stretching of the involved ligaments and contusion of the surrounding soft tissues.

**ETIOLOGY:** Strains and sprains usually result from a fall, a blow from another person, or a minor accident. In cases to be managed by the ER nurse, the history of the nature of the injury should suggest only minor trauma; for example, falling on the ground or a child's receiving a blow from another child. Although minor trauma does not ensure that the injury is not severe, it is an important point to notice. If there is a history of significant trauma, the patient should be seen by a Physician.

**SYMPTOMS:**

- Mild pain around the site of injury.
- Minimal or no loss of function of the involved area.

**SIGNS:**

- No instability
- No focal tenderness over the involved ligaments or bones.
- No crepitus
- Mild ecchymosis
- Minimal or no swelling of the involved area

**TREATMENT:** Advise the patient to:

1. Immobilize the joint for 24-48 hours.
2. Apply ice for 15 minutes every hour for 24 hours, if needed, to reduce swelling.
3. Apply local heat after the first 24 hours if needed for comfort.
4. Elevate injured part above the level of the heart.
5. Advise the patient to take ASA or Acetaminophen (or their usual over the counter pain medication) as per package instructions for pain.

**REFERRAL TO PHYSICIAN:**

1. All severe sprains suggested by: moderate to severe pain, loss of function, moderate to severe ecchymoses, point tenderness, instability, crepitation, moderate or severe swelling.

**FOLLOWUP:** A return visit is mandatory to see the Physician if there is NO improvement in 24 hours or incomplete resolution in 1 week.

## SUBJECTIVE

**YES**

NO

- ## OBJECTIVE

**YES**

NO

- ## Sensation

### Movement

### ELABORATE POSITIVE FINDINGS

DATE:

TIME:

SIGNATURE

**MacLEAN MEMORIAL HOSPITAL**

**EMERGENCY ROOM**

**NURSING PROTOCOL**

**MINOR EPISTAXIS**

**NAME:**

**ADDRESS:**

**PHONE #**

**MEDICARE #**

**DEFINITION:**      **Bleeding from the nose which can often occur spontaneously.**

**ETIOLOGY:**

1. Rupture of a blood vessel in the nose (usually the anterior septum), occurring most frequently in children and in the elderly.
2. Higher incidence in winter when heating causes drying and cracking of nasal mucosa.
3. Trauma from a direct blow to the nose.
4. Picking of dry crusted nostrils.
5. Hypertension, bleeding disorder, rarely.

**SYMPTOMS:** • Usually, none, other than the awareness of blood dripping down the posterior nasopharynx as well as external bleeding.

**SIGNS:**

- Bleeding from the nares and down the posterior nasopharynx.
- Localized bleeding point.
- Usually normal blood pressure.

**NOTE:** If there are signs and symptoms of a large blood loss or symptoms of hypotension/shock. Epistaxis should be classified as **EMERGENT**>

**TREATMENT:**

**A. Acute Bleeding**

1. Keep the patient in an erect sitting position with head tilted forward to prevent blood from going down the posterior nasopharynx.
2. Blow the nose gently to remove clots.
3. With thumb and forefinger or a nasal clamp, apply continuous external compression as far forward as possible on the soft part of the nostril for a full fifteen minutes by the clock.
4. If bleeding is not controlled or starts again repeat steps 2 and 3.

**B. Prevention**

1. Discourage picking of the nose.
2. Advise the patient to increase the humidity in the home, especially in sleeping areas, by means of a humidifier or pot of water on a heater.
3. Advise the patient to rub petroleum jelly over the nasal septum twice a day when dry or crusted.

**REFERRAL TO PHYSICIAN:**

1. Bleeding not controlled by two applications of pressure.
2. Evidence of a large amount of bleeding or symptoms of blood loss.
3. Recurrent bleeding within the first hour.
4. Second episode within a week.

## 22

\_\_\_\_\_

SUBJECTIVE			OBJECTIVE
Record : Duration of bleed, amt of blood loss.	YES	NO	Record in the notes
• Previous episodes			• Bleeding (amount, colour, duration, etc.)
• Hypertension			• Signs of trauma
• Bleeding disorder			• Respiratory assessment
• URI			• Vitals, q 15 minutes
• Allergies			
• History of trauma			
• Recent nasal surgery.			

## ELABORATE POSITIVE FINDINGS

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or printed text on the page.

DATE: \_\_\_\_\_

TIME:

**SIGNATURE:**

# MacLEAN MEMORIAL HOSPITAL

## GUIDELINES FOR TETANUS BOOSTER - ADULTS AND CHILDREN OVER THE AGE OF SEVEN

A key part of wound management is making certain that the patient's tetanus protection is adequate before leaving the Emergency Department. Tetanus prophylaxis is based on: (1) the clinical features of the wound that identify it as tetanus-prone, and (2) the patient's immunization history

Clinical Features	Non-Tetanus Prone Wounds	Tetanus-Prone Wounds
Age of wound	≤ 6 hours	> 6 hours
Configuration	linear wound	stellate wound, avulsion, abrasion
Depth	≤ 1 cm	> 1 cm
Mechanism of injury	clean sharp surface, (eg, knife)	missile, crush, burn, frost bite
Signs of infection	absent	present
Devitalized tissue	absent	present
Contaminants (dirt, feces, soil, saliva, etc.)	absent	present
Denervated and/or ischemic tissue	absent	present

### Guide to Tetanus Prophylaxis

History of Tetanus Immunization (Number of previous doses)	Nursing Action	Clean, Minor Wounds (Non-Tetanus Prone)		All Other Wounds (Tetanus Prone)	
		Td <sup>1</sup>	TIG <sup>2</sup>	Td	TIG
3 or more doses. <sup>3</sup>	Administer Td according to guidelines.	YES if more than 10 yrs since the last dose	NO	YES if more than 5 yrs since last dose	NO
Uncertain or less than 3 doses.	Notify the Physician for orders.	YES	NO	YES	YES

<sup>1</sup> Adult type tetanus and diphtheria toxoids.

<sup>2</sup> Tetanus Immune Globulin (Human).

<sup>3</sup> If only three doses of fluid tetanus have been received, a fourth dose of toxoid, preferably an adsorbed toxoid, should be given.

**DOSAGE:** 1) Adults and children over age of seven: Td = Tetanus and diphtheria toxoids adsorbed (for > 7 years of age) 0.5 ml. IM.

2) Children under the age of seven: Notify the Physician for orders. (A different strength of vaccine is used for children under the age of 7.)

#### NOTE:

- Uncertain or less than 3 doses are referred to the physician for followup instructions.
- Although the immunization guidelines (National Advisory Committee on Immunization) indicate TIG should be given in cases of 'all other wounds' when immunization status is 'uncertain or less than 3', current medical practice varies as to whether it is given. Therefore, these cases must be referred to the Physician.
- Individuals most likely not to have been immunized are women born prior to 1930.



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**Appendix F.**  
**CHART AUDIT TOOLS**

## **CLINICAL CHART AUDIT for SHARED PRACTICE**

### **Essential Hypertension Registry**

#### **Sampling Frame:**

- 30 of all known hypertensive clients charts, with the sample being randomly drawn from that population of chart numbers.
- 

1. Charts to be audited by a team of 2 independent consultants representing the fields of medicine and nursing. The audits will be independently completed and then cross-compared. Disagreements in scoring will be resolved in discussion.
2. After appropriately selecting charts according to the sampling method, the auditors must review the chart briefly and determine the appropriate audit tool. The audit tools were created to reflect the current shared practice protocol in hypertension. Because the protocol identifies variation in shared practice responsibilities according to management of hypertension, the audit tools are similarly designed. The audit forms for newly diagnosed patients with hypertension are subdivided as managed by drugs or simply lifestyle. A similar format is for those patients with history of hypertension prior to the study time line. The audit tools are color coded and labelled as follows: newly diagnosed/lifestyle (yellow); newly diagnosed/drug (green); maintenance/lifestyle (pink); maintenance/drug (blue). It is possible a chosen sample chart may in fact only represent a BP screen that was determined to not be hypertensive or requiring immediate follow-up. If so, choose another chart, because this audit is to examine for evidence of shared practice of hypertensive patients.
3. The audit forms are based on the practices identified in the protocol. Each item is cross referenced on the form to the protocol. If a line item must be further clarified or interpreted relative to the chart, you may refer back to the protocol reference for that item. A protocol is attached to this audit package.
4. After auditing the chart, the examiner is free to make any qualitative remarks they desire on the back of the audit form, relative to that chart. This allows the examiner the privilege of expressing their professional impressions and understanding and hence enhancing the evaluation for evidence of shared practice.

**Newly diagnosed/lifestyle Audit Tool**

CHART NUMBER \_\_\_\_\_

Underline the appropriate answer to the following prompts:

Score appropriately as indicated (Dr-1; RN-2; RD-2; Pt-2; O-2)

						Score
1. Follow-up protocol initiated by:	Dr	RN	RD	Pt	O	
p.5 part 1; p.2 part 2						
2. Initial lab studies completed prior to physician visit:	Yes(2)		No(0)			
p.4; p.2 part 2						
3. Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
p.2 part 1,2,3,4,5						
4. Evidence of counselling re lifestyle choices:	Dr	RN	RD	Pt	O	
p.2 part 1,2,3,4,5						
5. Evidence of BP monitoring according to protocol by RN	Yes(3)		No(0)			
1/wk x3; q2wk x2; qmos x3; q6mos						
6. Attended classes on hypertension (Taken from class lists; at least 1x/12mos)	Yes(2)		No(0)			
considered an imp aspect for teaching and support uses interdisciplinary model						
7. Case conference documented	Yes(5)		No(0)			
indicates formal collaboration						
<b>Summative score</b>						
Interpretation: Under 6-limited evidence of shared practice 6 and over-evidence of shared practice						

**Newly diagnosed/drug Audit Tool****CHART NUMBER** \_\_\_\_\_

Underline the appropriate answer to the following prompts:

Score appropriately as indicated (Dr-1; RN-2; RD-2; Pt-2; U-2)

	Dr	RN	RD	Pt	O	Score
1. Follow-up protocol initiated by: p.5 part 1; p.2 part 2						
2. Initial lab studies completed prior to physician visit: p.4; p.2 part 2	Yes(2)		No(0)			
3. Appropriate lab studies at 1, 3, 6, and 12 mos completed prior to physician visit: p.4; p.2 part 2	Yes(8)		No(0)			
4. Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
p.2 part 1,2,3,4,5						
5. Evidence of counselling re lifestyle choices: p.2 part 1,2,3,4,5	Dr	RN	RD	Pt	O	
6. Evidence of counselling re medication p.2 part 2	Dr	RN	RD	Pt	O	
7. Attended classes on hypertension (Taken from class lists; at least 1x/12mos) considered an imp aspect for teaching and support uses interdisciplinary model	Yes(2)		No(0)			
8. Case conference documented indicates formal collaboration	Yes(5)		No(0)			
<b>Summary score</b>						
Interpretation: Under 6-limited evidence of shared practice 6 and over-evidence of shared practice						
Audit Form developed by B. Greene, 1996. Accepted form 16/4/96						

**CHART NUMBER**

Scores appropriately as indicated (Dr-1; RN-2; RD-2; PI-2; U-2)

Score appropriate to situation (Dr 1, RN 2, RD 3, Pt 4, O 5)						Score
1. Evidence of BP checks every 6 months with: p. 5 part 3b	Dr	RN	RD	Pt	O	
2. Evidence of annual BP check-up with physician p. 2 part 5; p.5 part 3e	Yes(1)		No(0)			
3. Client's BP is well controlled, with no further complications or symptomatology requiring intervention p. 2 part 2 & 5	Yes(2)		No(0)			
4. Client's BP is not well controlled and appropriate follow-up is initiated. p. 2 part 2 & 5; p. 5	Yes(2)		No(0)			
5. Evidence of counselling re lifestyle choices by: p. 2; p. 5 part 3 & 4	Dr	RN	RD	Pt	O	
6. Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
p.2 part 1,2,3,4,5						
7. Attended classes on hypertension (Taken from class lists; at least 1x /12mos) considered an imp aspect for teaching and support uses interdisciplinary model	Yes (2)		No(0)			
8. Case conference documented indicates formal collaboration	Yes(5)		No(0)			
<b>Summative score</b>						
<b>Interpretation:</b> Under 6-limited evidence of shared practice 6 and over-evidence of shared practice						
Audit form developed by B. Greene, 1996						ACCEPTED 16/4/96

**Maintenance/drug Audit Tool****CHART NUMBER** \_\_\_\_\_

Underline the appropriate answer to the following prompts:  
 Score appropriately as indicated (Dr-1; RN-2; RD-2; Pt-2; O-2)

						Score
1. Evidence of BP checks every 6 months with: p. 5 part 3b	Dr	RN	RD	Pt	O	
2. Annual lab studies completed prior to annual check-up with physician p.4 part e; p.2 part 2c	Yes (2)		No(0)			
3. Evidence of annual BP check-up with physician p. 2 part 5; p.5 part 3e	Yes(1)		No(0)			
4. Evidence of counselling re lifestyle choices by: p. 2; p. 5 part 3 & 4	Dr	RN	RD	Pt	O	
5. Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
Referral by:	Dr	RN	RD	Pt	O	
Referral to:	Dr	RN	RD	Pt	O	
p.2 part 1,2,3,4,5						
6. Attended classes on hypertension at least 1x/12mos (Taken from class lists) considered an imp aspect for teaching and support uses interdisciplinary model	Yes (2)		No(0)			
7. Case conference documented indicates formal collaboration	Yes(5)		No(0)			
<b>Summative score</b>						
Interpretation: Under 6 - limited evidence of shared practice 6 and over - evidence of shared practice						
Audit form developed by B. Greene, 1996      ACCEPTED 16/4/96						



**CLINICAL CHART AUDIT for SHARED PRACTICE**  
**Diabetic Registry**

**Sampling Frame:**

- A random selection of 30 charts of all known diabetics who are followed by the Shared Practice Team at the Health Center.
- 

1. Charts to be audited by a team of 2 independent consultants representing the fields of medicine and nursing. The audits will be independently completed and then cross-compared. Disagreements in scoring will be resolved in discussion.
2. After appropriately selecting charts according to the sampling method, the auditors must review the chart briefly and determine the appropriate audit tool. The audit tools were created to reflect the current shared practice protocol for diabetes. Because the protocol identifies variation in shared practice responsibilities according to the management of diabetes, the audit tools are similarly designed. If client presented with diagnosis of diabetes prior to April 1995, proceed with audit using maintenance protocols, IDDM or for NIDDM for the past year of March 1995 - March 1996. If client presented with diabetic symptoms after March 1995, proceed with audit of newly identified diabetic for March 1995 - March 1996. The audit forms for newly diagnosed diabetes is color coded yellow. The audit form for charts of individuals with IDDM is color coded green. The audit form for charts of individuals with NIDDM is pink.
3. The audit forms are based on the practices identified in the protocol. Each item is cross referenced on the form to the protocol. If a line item must be further clarified or interpreted relative to the chart, you may refer back to the protocol reference for that item. A protocol is attached to this audit package.
4. After auditing the chart, the examiner is free to make any qualitative remarks they desire on the back of the audit form, relative to that chart. This allows the examiner the privilege of expressing their professional impressions and understanding and hence enhancing the evaluation for evidence of shared practice.

Underline the appropriate answer to the following prompts: **CHART NUMBER** \_\_\_\_\_  
Score appropriately as indicated (Dr -1; RN -2; RD -2; O -2)

					Score
<b>1. Evidence of q6mos check-up with physician to assess diabetes</b> p.2 part A & C #1 visit: Yes(1) No(0) #2 visit: Yes(1) No(0)					
<b>2. Periodic glucose monitoring by:</b> p. 2 part C					Dr RN RD O
<b>3. Lab work completed prior to physician visits:</b> p. 2 part C					Yes(2) No(0)
<b>4. Evidence of chart notation re weight, Bp, peripheral vascular/ neuropathy(must have all 3):</b> p.2 part C					Yes(1) No(0)
<b>5. Case conference documented indicates formal collaboration</b>					Yes(5) No(0)
<b>6. Attended diabetic classes at least once btw 3/95 - 3/96 (Taken from class lists):</b> considered an imp aspect for teaching and support uses interdisciplinary model					Yes(4) No(0)
<b>7. Referral by:</b>					Dr RN RD O
<b>Referral to:</b>					Dr RN RD O
<b>Referral by:</b>					Dr RN RD O
<b>Referral to:</b>					Dr RN RD O
<b>Referral by:</b>					Dr RN RD O
<b>Referral to:</b>					Dr RN RD O
p.2; p. 3					
<b>Interpretation: Under 6 - limited evidence of shared practice</b> 6 and over - evidence of shared practice					
					<b>Summative score</b>
Audit Form developed by B. Greene, 1996. ACCEPTED 16/4/96					

# NEWLY DIAGNOSED DIABETIC AUDIT TOOL

CHART NUMBER \_\_\_\_\_

Underline the appropriate answer to the following prompts:  
Score appropriately as indicated (Dr -1; RN - 2; RD - 2; O - 2)

					Score
1. Follow-up protocol initiated by: p.1 part 1; p.3 part D	Dr	RN	RD	O	
2. Periodic glucose monitoring by: p. 1; p. 3 part D	Dr	RN	RD	O	
3. Pertinent initial lab studies completed prior to physician visit: p. 3 part A	Yes(2)		No(0)		
4. Evidence of baseline physical assessment completed p. 3 part A	Yes (1)		No(0)		
5. Referral by:	Dr	RN	RD	O	
Referral to:	Dr	RN	RD	O	
Referral by:	Dr	RN	RD	O	
Referral to:	Dr	RN	RD	O	
Referral by:	Dr	RN	RD	O	
Referral to:	Dr	RN	RD	O	
p.2 part C; p.3					
6. Evidence of chart notation re weight, Bp, peripheral vascular/ neuropathy(must have all 3): p. 2; p.3	Yes(1)		No(0)		
7. Case conference documented indicates formal collaboration	Yes(5)		No(0)		
8. Attended diabetic classes at least once btw 3/95 - 3/96 (Taken from class lists): considered an imp aspect for teaching and support uses interdisciplinary model	Yes(4)		No(0)		
9. Evidence of client initiated follow-up for diabetes	Dr	RN	RD	O	
Interpretation: Under 6 - limited evidence of shared practice 6 and over - evidence of shared practice					Summative score
Audit Form developed by B. Greene, 1996. Accepted 16/4/96					

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**Appendix G.**

**FOCUS GROUP PARTICIPANTS**

*It's Time for our Check-up!!*

How WELL are we doing??????

McAdam Health Centre needs your suggestions and ideas about how well the Health Centre has met YOUR needs over the past 2 years.

You can participate in two different ways:

in a small discussion group

or

by joining in a telephone survey.

Your thoughts are important to us. If you are willing to share what you think, please phone the Health Centre, 784-6300 to sign up or for more information.

A small token of appreciation will be given to all who help out.

*We're looking forward to hearing from you!*

February 28, 1996

McAdam, New Brunswick  
EOH 1K0

**RE: Evaluation of the McAdam Community Health Centre**

Dear (Community Consultation Committee):

You may recall that when the Health Centre in McAdam was being planned, a Community Consultation Committee was formed to assist the planners in their task. Now, after almost two full years of operation, the Centre is being evaluated in order to assess how things are going. The Evaluation Committee\* is anxious to hear the views of the residents regarding the success of this project in meeting the needs of the community; and in particular, we would value the views of those who were involved from the start of this project. With that in mind, I would like to invite you or a representative from your business or organization to attend a special consultation meeting in the Boardroom at the Centre on Tuesday evening, March 12 at 8:15 pm. Rev. Bill MacLeod, Director of Pastoral Care for Region 3 Hospital Corporation, will lead the discussion. We anticipate that the meeting will last about an hour and a half.

Perhaps at your earliest convenience you would confirm your attendance by RSVP to the Health Centre (Tel. 784-6300) so that plans can be finalized for that meeting. As Chair of the Evaluation Committee, I want to thank you in advance for your support in this study. Your opinions and comments will be important in helping us to assess the level of success of the Centre in achieving its goals.

Sincerely,

Carole Dilworth  
Senior Evaluation Advisor

\* Bev Greene  
Bill MacLeod  
Shannon Sanford  
Barb Smith



February 20, 1996

McAdam, NB  
EOH 1K0

**Re: Community Health Centre Project Evaluation**

Dear (Interdisciplinary Action Committee):

You will recall that when the McAdam Community Health Centre test project first began, it was envisaged that two evaluations would be conducted: the first after six months of operation and the second after 18 months. The first evaluation was completed and the report was circulated in May of 1995. Now it is time to complete the second and final phase of the study. As part of this process we would like to consult with key people in McAdam regarding their perception of the success of the Centre. The Interdisciplinary Committee has been an important component of the project, in place almost from the beginning. For this reason, we would like to have the opportunity to ask the members of this Committee for their views regarding the Health Centre. As a member of the evaluation team, Reverend Bill MacLeod, Director of Pastoral Care for Region 3, has agreed to conduct a one hour consultation with the Committee. Would it be convenient for him to do this in the Boardroom at the regularly scheduled Committee meeting on Friday, March 1 beginning at 9 am?

At your earliest convenience, could you let me know if this arrangement would be suitable.

Yours truly,

Carole Dilworth, Chair  
Evaluation Committee\*

cc. Bev Greene  
Bill MacLeod  
Shannon Sanford  
Barb Smith

February 20, 1996

McAdam, NB  
E0H 1K0

**Re: Community Health Centre Project Evaluation**

Dear (Member Interdisciplinary Team):

You will recall that when the McAdam Community Health Centre test project first began, it was envisaged that two evaluations would be conducted: the first after six months of operation and the second after 18 months. You may recall being interviewed by Shannon Sanford last winter as part of the first evaluation which was completed, and a report circulated in May of 1995. Now it is time to complete the second and final phase of the study. At this time, I would, once again, like to ask for your participation in an individual, one-on-one interview. Similar to before, the questions will probe your thoughts and comments regarding aspects of the Health Centre. Reverend Bill MacLeod, Director of Pastoral Care for Region 3, has agreed to carry out this project for us. We would like to schedule the interview with him for the morning of March 11.

At your earliest convenience, could you please contact Bill's secretary, Carol Rankine, at 452-5135 to confirm arrangements. Thank you for your help with this project.

Yours truly,

Carole Dilworth, Chair  
Evaluation Committee

cc. Bev Greene  
Bill MacLeod  
Shannon Sanford  
Barb Smith

February 28, 1996

McAdam, New Brunswick  
EOH 1K0

**RE: Evaluation of the McAdam Community Health Centre**

Dear (Industry Representative):

On Tuesday evening, March 12 at 8:15 pm a meeting will be held in the Boardroom at the Centre to discuss and hear the views of invited community participants regarding the success of the Health Centre. When the Centre was planned, it was determined that after two years of operation it would be evaluated, specifically to assess how well the health needs of residents are being met. That time is almost upon us, and through a series of discussion groups over a two week period in March, the Evaluation Committee\* hopes to capture the essence of community opinion regarding the Centre. Rev. Bill MacLeod, Director of Pastoral Care for Region 3 Hospital Corporation, had agreed to lead the discussion. We anticipate the meeting to last about an hour and a half.

On behalf of the Evaluation Committee, I would like to invite you or a representative from your company/organization to attend this meeting. Your views will be important to us in helping us to assess the level of success of the Centre in achieving its goals. Perhaps at your earliest convenience you would RSVP your attendance to the health Centre (Tel. 784-6300) so that plans can be finalized for the meeting.

As Chair of this study, I want to thank you in advance for your assistance in this endeavour.

Sincerely,

Carole Dilworth  
Senior Evaluation Advisor

\* Bev Greene  
Bill MacLeod  
Shannon Sanford  
Barb Smith

February 23, 1996

Region 3 Corporation  
P.O. Box 9000  
Fredericton, NB  
E3B 5N5

**Re: Community Health Centre Project Evaluation**

Dear (Nursing Staff and Clerks):

When the McAdam Community Health Centre test project first began, it was envisaged that two evaluations would be conducted: the first after six months of operation and the second after 18 months. The first evaluation, focusing on processes, was completed and that report was circulated in May of 1995. Now is time to complete the second and final phase of the study. As part of this phase, the evaluators would like an opportunity to solicit the views and comments of the staff members - both the nurses and the clerks - who have been involved with the service delivery from the Health Centre. We are fortunate in that Reverend Bill MacLeod, Director of Pastoral Care for Region 3, has agreed to conduct this consultation with the staff, preferably on Monday, March 11. In order to accommodate the work schedules of the staff members, Bill has agreed to hold two sessions: one at 3:00 pm and the other in the evening at 6:30 pm. We would like to see the staff to be able to attend one or the other of these sessions? The meetings would take place in the boardroom at the Centre and would be approximately one hour.

I realize that by making this request we are asking staff members to add additional time to their working day, but their opinions are very important to us as they will help us to understand issues surrounding the operation of a health centre.

At your earliest convenience, could you let me know if this arrangement would be suitable, and if you could supply Bill a list of names of persons who will be attending?

---

**Appendix H.**

**CONSULTANT'S REPORT:**

***KEY INFORMANT AND COMMUNITY CONSULTATIONS***

MCADAM COMMUNITY HEALTH CENTRE

REPORT TO EVALUATION COMMITTEE

PREPARED BY

REV. W. M. MACLEOD, B.A., M.DIV.



**McAdam Community Health Centre Evaluation  
Interdisciplinary Committee**

**List of Questions**

1. What were your expectations about the Centre when the Interdisciplinary Committee was established? Have they changed? How?
2. How well do you feel the health care needs of the community have been explored and addressed by the Interdisciplinary Committee? How were these needs identified? Are some things unique in McAdam?
3. This group represents professions in community; how do you feel the linkages has gone between the disciplines represented in committee and community? Is there better communication now? Broader access to other disciplines or do your work from own corner or world? Do all groups cross-refer? Do the referrals get out to transportation committee? Linkages between Community Consultation Committee and Interdisciplinary Group? Did you ever get beyond that?
4. Why is the Interdisciplinary Committee important to the operation of the Centre? (Explore in terms of the coordination between groups). To what extent is there coordination with the CCC? Did they remain active? Why and why not?
5. How well are the health care needs of the Community being met by the Centre?
6. What do you find particularly effective? What else do you feel really helped to meet the Health Care needs of the Community? What could change?
7. Were you able to use the needs assessment study which was done originally? If yes, where and how? If no, why?
8. Is there an ongoing role for this Committee?
9. How active are community clergy? Oncall, or involved?
10. What are your recommendations for the future operation of the Centre?
11. What do you wish to communicate to the Evaluation Committee?

**MCADAM COMMUNITY HEALTH CENTRE  
REPORT TO EVALUATION COMMITTEE  
FOCUS GROUP DRAWN FROM INTERDISCIPLINARY COMMITTEE  
March 1, 1996**

There were eleven persons comprising this group. They represented McAdam Outreach, the Village of McAdam, Health Centre, Public Health, Adult Services, Extra-Mural Hospital, Manor Board, and Village Staff. This group was animated and candid in its approach to evaluating the work of the Centre over the past eighteen months.

The Interdisciplinary Committee has evolved to become the major ongoing resource of the Centre and the professionals and community organizations which work within the Centre. In the early days of the Centre's life they felt a need to reassure the community that there would be continuing health care for the community on a full time basis. There was a sense that they did not know exactly what to expect of themselves or of the centre and so they spent considerable time seeking to establish a direction for their work. This committee also has a lively sense of the programs that are associated with the Centre.

This group served as a sounding board for the Centre and there was a great deal of input from this group to the establishment of programs at the Centre. In some cases the group felt that programs are evolving and will continue to do so for some time to come.

The group indicated that there is good communication among the caregivers in the community and Centre. There is a sense that clients are well known to caregivers and vice versa and this dynamic increases the trust level and effectiveness of programs. The group fosters a lively sense of collaboration and that is bearing dividends in the sense of cooperation that exists among members of the Committee. Referrals tend to be made readily among the members of the group and outside the group to community services and programs. There is clear indication that this group has superseded the Community Consultation committee as a major resource to the Centre. However, lines of responsibility are blurred between these two groups.

The group sees its role as a sounding board for the community. There is a sense that this group is freer to discuss issues than it was earlier, and that the fear that "to criticize is to lose service" has diminished greatly. This group sees itself as having an ongoing role as a resource to the Centre. It also sees a role as a resource to other communities which might be contemplating establishing a similar approach to health care delivery as well as in education for wellness within the community. The group is also prepared and working to involve all the caregivers in the community in meaningful ways in health care delivery to residents of the area.

When asked how well health care needs of the community were being met; the group identified several areas of deficit such as vision care, dental service, speech therapy and

child care. With one exception the group felt that their input to the process was important. There was a sense of celebration at the fact that McAdam was selected as a site for a video on caring for family members with dementia. The observation beds and the palliative care bed received high praise. In particular, the flexibility of use for the observation beds has been appreciated and has served to enhance the health care of persons in McAdam. In general, this group feels that health care needs of the community are met in a timely and appropriate fashion.

Members of the group felt that the Needs Assessment done at the beginning of the program was less than helpful. Much of the programming was generated from the experience of the Centre and its clients. There is a need for a further assessment at this time to determine the directions in which the Centre needs to proceed in the months to come.

The group felt that Health Centres need to do a better job of data collection and of collecting statistical information as they begin their operation. The committee feels that McAdam could offer expertise to other communities which are establishing similar programs. It is obvious that this group feels that health care in McAdam has been enhanced by the Health Centre's establishment.

**McAdam Community Health Centre Evaluation  
Community Consultation Committee**

**List of Questions**

1. What services of the Centre are you aware of?
2. Do you feel the Centre meets the Health Care needs of your employees?
3. What aspects of the Centre's services are most beneficial to your organization?
4. What are the strengths and weaknesses of CHC? What other strong points do you see?
5. What changes have occurred in the Centre's services since it opened?
6. Has your opinion of the Centre changed since it opened. If so what has changed your attitudes (eg., education, promotional material, etc.)?
7. What has brought about the changes?
8. How would you compare health services in McAdam now and before? What is better now than before the Centre opened? Is there anything that is worse?
9. From your observation, do you feel the Centre has had an impact on the health outcomes of your staff? If so, how has it impacted?
10. Did the Centre have a role to play in your establishing or maintaining a presence in the community?
11. Does your organization have input into the activities of the Centre? If so, how does this occur?
12. What programs would be helpful to your organization?
13. What suggestions do you have for improving the services at McAdam?
14. What would you like to tell the Evaluation Committee?



**MCADAM COMMUNITY HEALTH CENTRE  
REPORT TO EVALUATION COMMITTEE  
FOCUS GROUP DRAWN FROM COMMUNITY CONSULTATION COMMITTEE  
March 12, 1996**

Five members of the Community Consultation Committee attended the Focus Group. They represent the following organizations: Lakeland Industries/Lakeland Resource Centre, McAdam Elementary School, McAdam Community Health Centre, McAdam Ambulance Service, and the McAdam Health Consultation Group. This group was established originally as a link from the community to the Dept. of Health and Community Services and was active in the establishment phase of the Health Center. It's role has been assumed to some extent by the Interdisciplinary Committee which meets regularly and encompasses the various disciplines active in the community and Health Centre.

The members of this group were aware of some of the programs and services of the Health Centre including emergency care, the blood pressure and diabetes clinics and some of the programs provided in the community in schools, etc. They were very positive about the ways in which the Centre meets the need of their employees and members of the community. This group related a strong sense that the Centre helped people to feel at home in the community in spite of their health concerns. "The Centre is not just a place to come when you are sick. It is a central place in the life of the community ... a place to come and feel at home.", said one member of the Focus group.

The Group related strengths of the Centre to include the fact that staff are known to clients and clients to staff, the professionalism of the staff, and the approachability of the centre staff. Strengths of the Centre include the willingness of the Centre to respond to program needs of the community , the availability of services such as 'flu shots in the community. This saves significant time for residents of McAdam and also serves to increase their level of comfort with and confidence in the health care within the community.

This Group expressed a need for more access to palliative care beds in the community. While they recognize the work done by Extra-Mural Hospital and others in supporting persons at home, there is a need for them to see more care of this type within the Centre.

The Group is aware of the changing nature of the Centre's role in the community. They cited the versatile programming and "spider webbing" into the community from the Centre. The Centre is seen as a proactive establishment in McAdam. It attempts to involve a number of organizations from the wider community (e.g. Community Kitchen, garden, and Transportation Committee). Attitudes have not changed significantly in this Group. One member reminded the Group that 80% of the services now in the Centre were in the



community before the project started. However, he also was quick to point out that the community input has expanded and the programs have broadened the scope of their service in the past eighteen months of the Centre's operation.

As with other respondents, this Group feels that health care is enhanced for the residents of the community. The observation beds, are much appreciated and serving the need of the population well. The emergency services receive a high satisfaction rating, and the palliative care bed is very important to the community sense of well-being and safety,

While none of the respondents indicated that the Centre had a major role to play in establishing or maintaining the presence of their organization in the community, they were unanimous in their sense of the need for such a facility in an area where the economy relies upon industry for growth and survival. The Health Centre is one of the attractions for persons coming to the community. The ability to refer and the ease with which referral is accomplished, rates high on the satisfaction scale of the respondents. Several of the respondents spoke of the willingness of the Centre to consult with and develop programs for their organizations. This speaks of a high coefficient of cooperation between the community and the Center and is a major item of satisfaction for these community leaders.

The respondents wish to stress the necessity of maintaining the Centre in McAdam. Equally, they would stress their willingness as a community to be involved with the Centre. They particularly singled out Extra-Mural Hospital for praise as an integral support service to the Centre. The cooperation between these two groups is both appreciated and recognized by the Community Consultation Committee. They are ready for wider cooperation and support within the community.

**McAdam Community Health Centre Evaluation  
General Public/Citizens**

**List of Questions**

1. What services are offered by the Community Health Centre?
2. Have you or your family visited the Health Centre in the past year?
3. How would you compare health services in McAdam now with before?
4. What brought you to the Centre (eg., emergency, clinic, education)?
5. What was your experience during that visit?
6. Tell us about your visit. How would you rate the service? Did it meet your needs and expectations?
7. Who did you expect to look after you in the Centre (Doctor, nurse, dietician, physiotherapist, etc.)?
8. As you look out over the community and talk to friends and families are needs being met?
9. Are there any barriers that limit your access to service?
10. Has your opinion of the Centre changed since it opened? If so what has changed your attitudes (eg., education, promotional material)?
11. When you were in the midst of the change over as was there concerns in the Community?
12. Has anyone been admitted to the observation bed or 48 hour bed?
13. What are the strengths and weaknesses of the CHC?
14. Are there things that McAdam would benefit? Is there a hearing clinic?
15. How do you see yourself being responsible for your health? How does the centre encourage you to be responsible for your health?
16. What do you wish to say to the Evaluation Committee?
17. What suggestions do you have for improvement of the service in McAdam?



**MCADAM COMMUNITY HEALTH CENTRE  
REPORT TO EVALUATION COMMITTEE  
CITIZENS' INTERVIEW  
March 11, 1996**

The writer interviewed two citizens of the community of McAdam, chosen because of their involvement in civic life. Both interviewees are prominent business persons within the community. Each interview was conducted in the person's place of business both were willing and eager to talk with the writer. Both were candid and forthcoming with their opinions.

Both citizens readily admitted to their reservations about and opposition to the establishment of the Health Centre. In both cases, they felt that service would be diminished, level of care would decrease and persons would not be served as well as previously. In both cases these persons have become supporters of the Health Centre and talk about issues such as the improvement in care for patients, the improved access to service, and the level of care and acceptance evident in community members. One of the persons felt that the loss of beds was still an issue; but that the Centre was doing a good job with the resources available.

In particular, programs such as blood pressure monitoring, diabetes education and the Aging Well programs were singled out for praise. Both indicated that there were some areas with which the Centre struggled as it attempted to identify and respond to program needs within the community. However, each person interviewed indicated that the emergency services, the observation and palliative care beds, and the shared practice were positive aspects of the Health Centre's work in the community.

The interviewees indicated that a clearer sense of teaming within the facility and between the facility and the Region are necessary. As well, they indicate the need for a continued partnership with the Department of Health and Community Services to promote the well being of the citizens of the community. One of the interviewees, in particular sees the possibility for an expanded role of the Centre in the area of wellness in the community using the schools and other organizations as a base from which to work.

In both cases, Extra-Mural Hospital received very positive reviews. It is seen as an integral link in the care system and provides excellent service to complement that of the Health Centre.

Both interviewees see the opportunity to expand the role of the Health Centre in the community. Issues such as wellness, alcoholism, and lifestyle improvement are seen as appropriate areas for development for the Centre.

Both interviewees stress the need for maintenance of emergency services, observation beds, and the community education programs for wellness and improved lifestyle. In both cases, the interviewees indicate that their early fears of decline in service have been unfounded and the service has improved and been greatly enhanced.

**McAdam Community Health Centre Evaluation  
Health Care Professionals/Nurses/Physicians**

**List of Questions**

1. What was your original understanding of the Health Centre Project?
2. Do you feel the Centre is operating as initially intended?
3. Do you feel the operation has changed since the Centre opened? Has your opinion of the Centre changed since it opened? If so, what has changed your attitudes (eg., education, promotional material, etc.)? Has your opinion of the Centre changed over the last 18 months?
4. Do you think that there have been changes in Health related behaviours as a result of the Community Health Centre programming and can you give me an example, examples? Has health education changed?
5. Do you feel the Community has realistic expectations of the Centre? Why or why not? Is that the biggest unrealistic expectation, the change in the perception of what a health centre means vs a hospital?
6. Rate the communication among Health Care professional in the Centre. Is there a team approach?
7. Do you feel that shared practice is working? What would you change about shared practice?
8. What suggestions do you have for improvement of service at McAdam?
9. Do you feel that Health promotion efforts are having a positive impact on health outcomes? Can you give any examples?
10. How would you compare health services in McAdam now with before?
11. What are the strengths and weaknesses of the CHC? Are there strengths that we haven't talked about?
12. Do you feel the Centre is responsive to the health care needs of the community? Do the programs address the needs of the Community?
13. What would you like to say to the Evaluation Committee?





**MCADAM COMMUNITY HEALTH CENTRE  
REPORT TO EVALUATION COMMITTEE  
NURSING INTERVIEWS  
MARCH 11, 1996**

The writer interviewed two persons from the nursing administration at the McAdam Community Health Centre and the Wauklhegan Manor. Both person were at ease and candid in their assessment of the Health Centre and its place in the community. Both were interviewed in their place of work.

The interviewees indicated that, in the beginning of the project, there was a great deal of uncertainty as to the plan for the Centre. Staff thought the Department had the plan and were unsure of the way in which to implement it. As the Centre has experienced growth of understanding of its role the uncertainty has diminished greatly. Both interviewees see the Centre as working in accordance with the original understanding of the Centre, even given the uncertainty or role.

Changes in the Centre include the fact that people are seen by the appropriate caregiver for the presenting problem, and that the Health Centre and Manor now work as one entity. One of the changes engendered some ambiguity as to whom the Centre relates — Health Region 3 or Health Management services. A very positive change is seen in the flexibility employed in the use of observation beds in the Centre.

Shared practice is generally seen as a positive step. This is particularly true since all nurses have become involved. The interviewees indicate that it is important to establish the understanding that all nurses participate in shared practice from the beginning. There seems to be little friction among the team members in regards to shared practice and this has the side effect of moving the physician more directly into the care team. This is an involvement that is both welcomed and sought by persons interviewed.

The interviewees rated the expectaions of the community as being realistic for the most part. There is a major concern over the loss of beds in the community. There is a sense in which the community is appreciative of the service provided by the Health Centre.

Communication in the Centre is quite good. However, both interviewees indicate that a greater sense of inclusion of the physicians in the care team is necessary and important. Protocols for nursing are rated as a helpful tool which formalizes some of the existing working arrangements among the care team. Communication to the regional hospital and to other areas of the region has improved.

The concepts of salaried physician and dedicated nursing staff are rated as very positive by both interviewees. This arrangement permits a coordinated effort among team members and increases the sense of team work among caregivers.

It is important to identify and clarify the roles of persons in the nursing administration group.

In the early days of the Centre's life, there were many areas in which the roles were unclear and inconsistencies and confusion resulted. It is also important to clarify the relationships between the region and Health Management Services.

Both interviewees indicated that it is important to determine early the direction in which the Centre wishes to proceed and the services and programs it will offer to the community. Both interviewees suggested that a Needs Assessment may be required again to determine the most effective programs for the community,

**McAdam Community Health Centre Evaluation  
Health Care Professionals/Nurses/Physicians**

**List of Questions**

1. What was your original understanding of the Health Centre Project?
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4. Do you think that there have been changes in Health related behaviours as a result of the Community Health Centre programming and can you give me an example, examples? Has health education changed?
5. Do you feel the Community has realistic expectations of the Centre? Why or why not? Is that the biggest unrealistic expectation, the change in the perception of what a health centre means vs a hospital?
6. Rate the communication among Health Care professional in the Centre. Is there a team approach?
7. Do you feel that shared practice is working? What would you change about shared practice?
8. What suggestions do you have for improvement of service at McAdam?
9. Do you feel that Health promotion efforts are having a positive impact on health outcomes? Can you give any examples?
10. How would you compare health services in McAdam now with before?
11. What are the strengths and weaknesses of the CHC? Are there strengths that we haven't talked about?
12. Do you feel the Centre is responsive to the health care needs of the community? Do the programs address the needs of the Community?
13. What would you like to say to the Evaluation Committee?



**MCADAM COMMUNITY HEALTH CENTRE  
REPORT TO EVALUATION COMMITTEE  
FOCUS GROUP DRAWN FROM HEALTH CARE PROFESSIONALS  
March 12, 1996**

The opportunity was made available to all professional Health Care workers at the Centre to participate in an afternoon or an evening session. The afternoon session was well attended with seven persons present. The evening session was cancelled when only one person attended. Health Care workers were given the opportunity to submit individual submissions. Two persons have taken the opportunity to do so.

In general, health care workers have an understanding of the Centre as employing a multidisciplinary approach to health care in the community. They envision the centre as employing an operating style which involves several professions in the care of persons in the community. The chief criticism of the operation of the Centre revolves around the sense that the Centre was slow to get underway. The tentative approach by all staff is evident in their comments about uncertainty of a plan for the Centre, about who was to take the lead in establishing the working style of the Centre and about the lack of understanding of the scope of shared practice. Originally, it was understood that only one Nurse would be participating in shared practice. Recently that issue has been addressed as shared practice has become the norm for those on staff.

Health care workers were unanimous in their sense that the Centre's operation has changed over the eighteen months of its operation. Again, as confidence grew, programs became more tailored to the community's needs, there was better use of the facility's observation beds and the service has begun to find the flexibility it needs to meet the community's needs in a timely, appropriate fashion. Staff consistently spoke of the change in attitude which is evident in the Centre's personnel. They attribute that to the fact that roles are more sharply defined than earlier, attitudes have changed and improved, the learning curve regarding the program has been completed. The establishment of a coordinator's position for the program has been most helpful in providing guidance and objective input to planning and outcome measurement.

The group agrees that health related behaviours have changed since the inception of the Health Centre. In particular, people are receiving better monitoring of blood pressure and diabetes through the program of the Centre. It is the opinion of the group that the Centre attempts to be responsive to the needs of the community and does so with a fair measure of accuracy. Health education has changed in the community — slowly. Programs such as Aging Well and the Menopause education program are making a major positive impact on the community. The community expectations of the Center will require more education and information. The professional health care workers report that community expectations have changed as they have become more familiar with the Centre and its programs. It was felt



at first that the Centre would be only a Doctor's office. That perception has changed over the past eighteen months so that the community now has more realistic expectations of the Centre. As people become more familiar with the work of the Centre, there is a sense that they receive better access to care than previously.

Communication among the health care professionals is generally rated as good and improving. The most positive response revolves around the decrease of isolation among various groups of professionals. As persons become more comfortable with their roles, the communication lines tend to open and the spirit of team continues to grow. There is a general openness and freedom in communication which provides for good information flow and good patient care.

Shared practice is a positive element in the work of the health care workers. As people become more comfortable with their own roles, the concept becomes more attractive. The decision to implement dedicated nursing staff has been a major improvement; for it permits patients and staff to get to know one another at depth. As a result the level of trust improves and shared practice is enhanced. There is little notion among this group of turf protection; a reality which augurs well for this method of practice in the future. Professional health workers particularly appreciate the presence and teamwork of the Physicians in the Centre and would like to see that cooperation expanded.

In general, professional health workers indicate that education for leadership would have been an asset for the beginning of the program. There is work to be done yet to assure smooth transfers of patient within the Region and thus to enhance the service to the people of McAdam. On several occasions we heard the stated need for better understanding within the Region of the role of the health centre and its need to be in constant contact with the Regional hospital and its services.

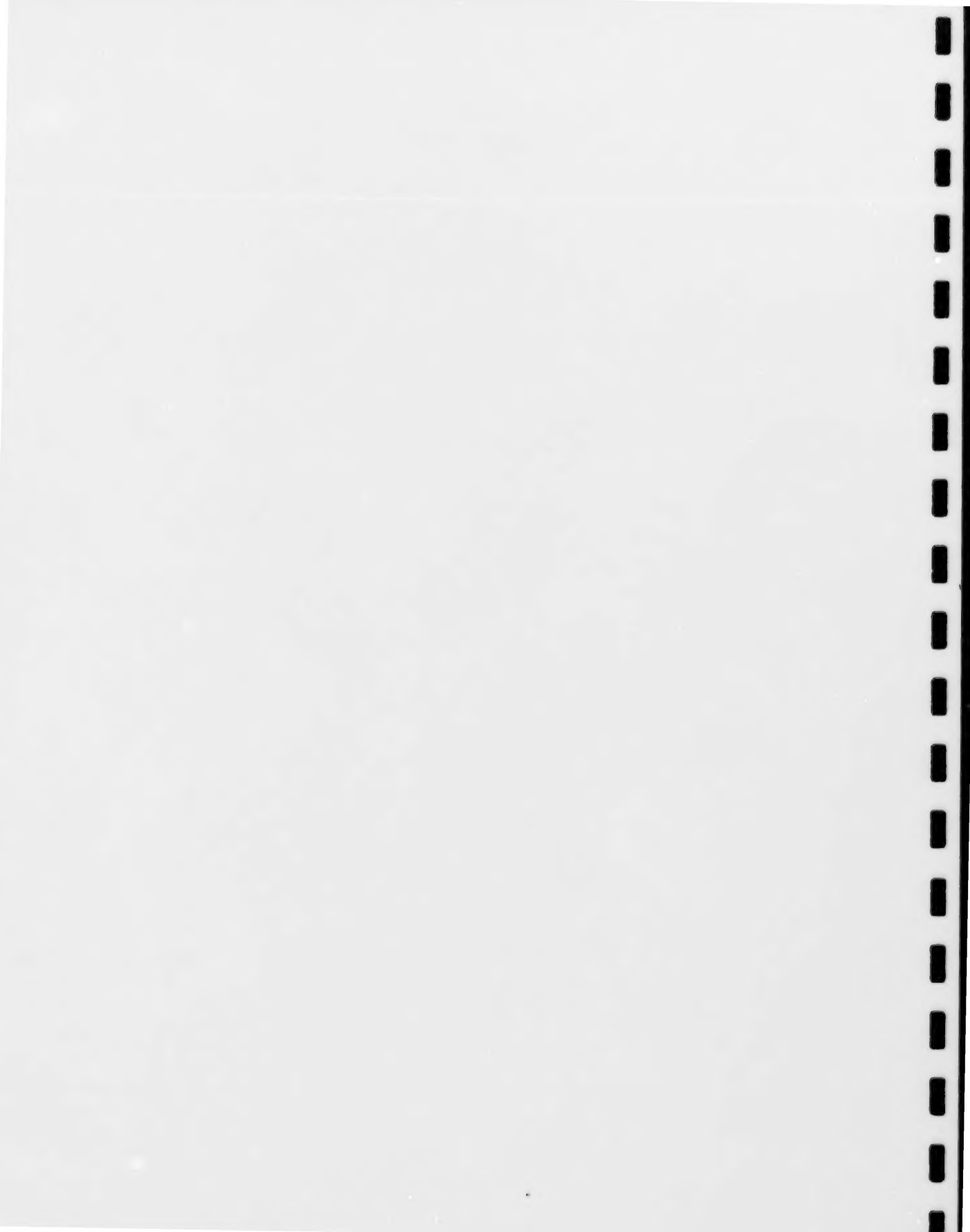
It is clear that this group sees the Health Centre as enhancing the health of the people of McAdam. In particular, they see patients as being better maintained and coming to the Centre before their conditions deteriorate to the point that they require extensive hospitalization and treatment. Health services are rated as better than before the Centre was established. The particular areas of improvement include the ability to have 24 hour access to a physician, great ability to assess and stabilize patients before transport, and a sense that there is more service to be offered to the citizens.

The group expressed their appreciation for the enhanced role of nurses, the greater teamwork among professionals and the programs aimed at meeting community needs. There is unanimous agreement that the Centre has been effective and has improved service to the community.

**McAdam Community Health Centre Evaluation  
General Public/Citizens**

**List of Questions**

1. What services are offered by the Community Health Centre?
2. Have you or your family visited the Health Centre in the past year?
3. How would you compare health services in McAdam now with before?
4. What brought you to the Centre (eg., emergency, clinic, education)?
5. What was your experience during that visit?
6. Tell us about your visit. How would you rate the service? Did it meet your needs and expectations?
7. Who did you expect to look after you in the Centre (Doctor, nurse, dietician, physiotherapist, etc.)?
8. As you look out over the community and talk to friends and families are needs being met?
9. Are there any barriers that limit your access to service?
10. Has your opinion of the Centre changed since it opened? If so what has changed your attitudes (eg., education, promotional material)?
11. When you were in the midst of the change over as was there concerns in the Community?
12. Has anyone been admitted to the observation bed or 48 hour bed?
13. What are the strengths and weaknesses of the CHC?
14. Are there things that McAdam would benefit? Is there a hearing clinic?
15. How do you see yourself being responsible for your health? How does the centre encourage you to be responsible for your health?
16. What do you wish to say to the Evaluation Committee?
17. What suggestions do you have for improvement of the service in McAdam?



**MCADAM COMMUNITY HEALTH CENTRE  
REPORT TO EVALUATION COMMITTEE  
FOCUS GROUP DRAWN FROM GENERAL PUBLIC  
March 12, 1996**

The Focus Group was generated from those using the services of the Health Centre and willing to participate. Participants were chosen at random from those attending the Health Centre. There were five persons who participated in the focus group.

Members of the group were aware of services offered by the Centre and able to list a number of these services. Services such as Blood Pressure Monitoring, Diabetic Education and programs in the community, such as the Transportation Program, carried a high profile and reflected positively on the Centre, whether or not the Centre actually initiated or sponsored the programs. Services of the Centre form a vital part of the community of McAdam and are both used and appreciated by the public as represented in our sample. Although most of our group and their family members were high volume users of the facility, they had a perception that they were not the persons most in need of health care and suggested that perhaps we should talk to some who were really ill in the community. This attitude reflects well the integration of the programs and services into the community and their ready access to the persons utilizing them.

To a person, group members rated health service as better than before the advent of the Health Centre. Members cited examples of their satisfaction with being able to obtain services in McAdam which previously required a trip to Oromocto, St. Stephen or Fredericton. Service was consistently rated as meeting needs and expectations of the members of the focus group.

There is a growing understanding and acceptance of the concept of seeing the most appropriate person on accessing the Health Centre. In particular, persons using the Centre for services such as glucose monitoring or blood pressure monitoring, recorded a high measure of satisfaction with seeing the person in the care team most appropriate to the level and type of service required. As well, group members were appreciative of the cooperation among professionals giving care in McAdam as well as among the facilities which can be accessed to provide the care needed. There are no serious barriers to persons accessing service in McAdam which have been stated in the group.

There has been a change of attitude over the past eighteen months, as people have come to recognize that the change in service did not herald a prelude to total loss of service in the community. The presence of the observation beds and the palliative care bed have been much appreciated by community members.

The group members related the great strength of the Health Centre as its accessibility and

its ability to deliver appropriate service to persons in the community. As well, the programs of awareness of health issues and the education of the population to address their own concerns have served to make people feel more confident, comfortable and willing to test their independence. The use of local newspapers, cable television and word of mouth have served to increase the Centre's ability to communicate regarding its programs and services.

The members of the group were asked what they would like to communicate to the evaluation committee. Overwhelmingly, the comments echoed sentiments of keep up the good work. We value the Extra Mural hospital. The programs meet our needs in a timely fashion.

The members of the focus group for the general public were positive, candid and appreciative of the presence and activity of the Health Centre.

**McAdam Community Health Centre Evaluation  
Health Care Professionals/Nurses/Physicians**

**List of Questions**

1. What was your original understanding of the Health Centre Project?
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3. Do you feel the operation has changed since the Centre opened? Has your opinion of the Centre changed since it opened? If so, what has changed your attitudes (eg., education, promotional material, etc.)? Has your opinion of the Centre changed over the last 18 months?
4. Do you think that there have been changes in Health related behaviours as a result of the Community Health Centre programming and can you give me an example, examples? Has health education changed?
5. Do you feel the Community has realistic expectations of the Centre? Why or why not? Is that the biggest unrealistic expectation, the change in the perception of what a health centre means vs a hospital?
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7. Do you feel that shared practice is working? What would you change about shared practice?
8. What suggestions do you have for improvement of service at McAdam?
9. Do you feel that Health promotion efforts are having a positive impact on health outcomes? Can you give any examples?
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11. What are the strengths and weaknesses of the CHC? Are there strengths that we haven't talked about?
12. Do you feel the Centre is responsive to the health care needs of the community? Do the programs address the needs of the Community?
13. What would you like to say to the Evaluation Committee?



**MCADAM COMMUNITY HEALTH CENTRE  
REPORT TO EVALUATION COMMITTEE  
PHYSICIAN INTERVIEW  
March 11, 1996**

The Physician interview took place at the end of a day in MacAdam. In addressing the question of shared practice; there is a sense that shared practice works very well. The particular elements cited include increased cooperation among staff and decreased resistance to sharing turf among the members of the care team. There is a great deal of openness to expanding the practice from one of the physicians in the Centre in particular. He relates and increased confidence in patients and in staff members as shared practice is expanded.

The Physician interviewed identified the need to make a greater impression on the Region. A major source of frustration is the fact that colleagues do not know what the Center does and this contributes to difficulty in such processes as referral and transfer of patients. There is a sense that person in the Regional hospital could benefit from knowing more about the Centre and becoming more involved in its life and work. "We should get the physicians out here to see what we do. " was one quote.

There is a definite sense that service has been improved since the inception of the Health Centre. Care is rendered in a more timely and appropriate fashion. This fact is much appreciated by the Physician interviewed.

The nursing protocols in place in the Centre have aided in providing excellent care to patients. There is a sense that while there are limits which must be respected; protocols for Nursing are to be encouraged and supported.

The physician interviewed has a clear sense that the health of the community's members has been improved by the programs of the Health Centre. He is highly supportive of the continued presence and growth of the health and wellness efforts of the Health Centre.

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**Appendix I.**  
**CONSULTANT'S REPORT:**  
***TELEPHONE SURVEY***

# **Telephone Survey**

Prepared by:  
Betty MacWilliam, R.N., B.N.

**For**

**McAdam Community Health Centre**

**Evaluation Committee**

April 15, 1996

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## **Introduction**

A telephone survey was conducted at the request of the McAdam Health Centre Evaluation Committee. Interview methodology was used to acquire answers to a prepared set of questions.

Ten (10) names were submitted and contact was made with six (6) or 60% of the people listed. They agreed to be interviewed and appointment times were made to the satisfaction of the respondents. Consistency was maintained by asking each of the respondents the prepared questions.

The responses are included in this document as well as some general observations.



## **McAdam Community Health Centre Evaluation**

### **Questions to General Public**

1. What services are offered by the Community Health Centre?
2. Have you or your family visited the Health Centre in the past year?
3. How would you compare health services in McAdam now with before?
4. What brought you to the Centre (Emergency, Clinic, Education)?
5. What was your experience during that visit?
6. Tell us about your visit. How would you rate the service? Did it meet your needs and expectations?
7.
  - a) Who did you expect to look after you in the Centre (Doctor, Nurse, Dietician, Physiotherapist, etc.)?
  - b) As you look out over the community and talk to friends and families, are needs being met?
8. Are there any barriers that limit your access to service?
9.
  - a) Has your opinion of the Centre changed since it opened? If so, what has changed your attitudes? (Education, Promotional Material)
  - b) When you were in the midst of the change over, was there concerns in the community?
  - c) Has anyone been admitted to the observation bed or 48 hour bed?
10.
  - a) What are the strengths and weaknesses of the CHC?
  - b) Are there things that McAdam would benefit?
11. How do you see yourself being responsible for your health? How does the Centre encourage you to be responsible for your health?
12. What do you wish to say to the Evaluation Committee?

**Responses****Question 1: What services are offered by the Community Health Centre?**

Respondent	No.1:	Blood pressure screening clinics Menopause clinics Weight control - diets
	No.2:	Outreach program Friends of the Manor Foot Clinic Programs for over 40 (women) Diabetes programs Prenatal programs
	No.4:	Meals at noon Physio Therapy x 2 per week Medical services The Manor is there Foot care Groups such as: Blood pressure, diabetes, other information groups - couldn't think of any but see it on cable and in the Fortnighter! I don't use it a lot.
	No.5:	Homemakers - I have a homemaker that comes every day (Monday-Friday).
	No.9:	Program on heart Home care Physiotherapy High blood pressure - You can go to have your blood pressure taken.
	No.10:	Doctor's Office Emergency Department Well Baby Clinics Prenatal Classes Foot Care Outreach

**Question #2: Have you or your family visited the Health Centre in the last year?**

Respondent:	No.1:	Yes
	No.2:	Yes
	No.4:	Yes
	No.5:	Yes
	No.9:	Yes
	No.10:	Yes

**Question #3: How would you compare health services in McAdam now with before?**

Respondent	No.1:	See health services better. Now there is a Doctor there, where before there wasn't one there all the time.
	No.2:	I don't know. Whenever I wanted service it was always there. When Dr. Lam is off, Dr. Olmstead is there. I never bothered asking.
	No.4:	Just moved to McAdam when change was made. Excellent service.
	No.5:	Find it handy.
	No.9:	Now more restriction than before. Personally, not as free to ask questions. Every time I go to the Health Centre I have to show my medicare card. How come? With computers available they should be able to work those things out. How come there are so many nurses there now than before?
	No.10:	I will be honest. My physician is only in McAdam one day per week. If he is not here, I go to Harvey. If the need is through the week, the nurse evaluates. If the need for service is on the weekend and my doctor is on call, I call him. If not, I go elsewhere.

**Question #4: What brought you to the Centre (Emergency, Clinic or Education)?**

- Respondent No.1: Problems with cholesterol. Went to the doctor and ran into the nurse and she explained the program to me. I see a lot of programs in the Fortnighter. I liked the puzzle that was in the Fortnighter that you had to fill in and then you turned it into a local business and got a \$10 gift certificate.
- No.2: Emergency
- No.4: Clinic -- Bursitis. Seeing Physiotherapy twice a week and Dr. Olmstead every two weeks for bursitis.
- No.5: Emergency - Low blood! I am a diabetic and I had to have my insulin changed.
- No.9: Clinic - high blood pressure.
- No.10: Asthma - two children with asthma requiring medical attention.

**Question #5: What was your experience during that visit?**

- Respondent No.1: Screened by the nurse. The nurse does everything - complete workup. Then saw the doctor. They saved my life once when I had pains in my chest. Attended the eight week program on Healthy Heart.
- No.2: Couldn't see Dr. Lam or Dr. Olmstead when she wanted to for her emergency. Receptionist told her the doctor was busy - have to be an emergency so remained at home and it cured itself. (I am on the Board of the Manor and used to be on the Board of the Hospital.)
- No.4: Excellent.
- No.5: Was in the overnight bed and didn't like the idea of men and women together in the same room. There is nice staff at the foot clinic.
- No.9: All staff are A-1, even kitchen staff - treated fine!
- No.10: Most times pretty good, depending on who is on duty (Doctor).

**Question #6: Tell us about your visit? How would you rate the service? Did it meet your needs and expectations?**

- Respondent No.1: Excellent.
- No.2: It did not meet my needs on one particular visit but service is good.
- No.4: Excellent.
- No.5: Great staff.
- No.9: Yes, needs were met. (Does volunteer work at the Manor.)
- No.10: Not a pleasant experience.

**Question #7 (a): Who did you expect to look after you in the Centre? (Doctor, Nurse, Dietician, Physiotherapist, etc.)**

- Respondent No.1: Expected to see doctor first. The doctor referred me to the physiotherapist and she cured me.
- No.2: Don't care as long as someone is there to help me. It is a medical problem, I expect to see the doctor.
- No.4: Doctor.
- No.5: Usually the doctor.
- No.9: Doctor.
- No.10: Nurse.

**Question #7 (b): As you look out over the community and talk to friends and family are needs being met?**

- Respondent No.1: Generally, yes.
- No.2: Some people praise the staff. Others say nothing. We have a hospital without walls and people praise the staff there. There are other services offered and as long as people are having their needs met they won't say anything.
- No.4: No, some people think it is awful, i.e. losing the physiotherapist at end of month and will have to travel for this service.
- No.5: Thinks pretty well. Son runs the ambulance and we have good ambulance service.
- No.9: About a month ago a friend went there and she found the room very cold. (This was in a three bed room.)
- No.10: The needs of the elderly are being met but not the needs of the younger generation.



**Question #8: Are there any barriers that limit your access to service?**

Respondent	No.1:	No barriers.
	No.2:	Would like to see a Dentist at the Centre. More seminars at the centre for: 1) how to deal with the aging; 2) people with mood swings; 3) alcoholism; and 4) more education programs. Most things are in the daytime and people like her can't attend.
	No.4:	No, everything goes by appointment.
	No.5:	None.
	No.9:	No.
	No.10:	The medical service provided is a barrier for this person and her family.

**Question #9 (a): Has your opinion of the Centre changed since it opened? If so, what has changed your attitudes? (Education, promotional material.)**

Respondent	No.1:	It is "better run". Didn't have these services before and we learned a lot more now.
	No.2:	Yes, things have changed. More programs available.
	No.4:	No, more satisfied than she thought. Afraid of losing their beds. There was not value in shutting it down.
	No.5:	Didn't like it at first. Okay now, better then not having anything. The people are nice.
	No.9:	Yes, it has changed. The government wasted too much money on fixing the building, i.e. renovations to the front entrance to the Health Centre. It was just fine the way it was.
	No.10:	Yes, one problem for me now is when I took my baby to Dr. E. Chalmers Hospital for five days. We could have been closer to home if a crib was set up in the Centre.

**Question #9 (b): When you were in the midst of the changeover, was there concerns in the community?**

- Respondent No.1: Yes, everybody was afraid to change. Afraid the service would not be as good.
- No.2: Yes, lots of concerns. There would not be a hospital any more. I love it now. People stayed in the beds just to keep them filled. We now have E.M.H. to look after people at home. Two days is enough to keep people in the Health Centre and if they need further care they should be transferred anyway. The idea of a palliative care bed and a relief care bed is a good one.
- No.4: There was panic but things are more settled now. The ambulance is wonderful.
- No.5: A lot of people didn't like the changes and couldn't imagine what it would be like.
- No.9: Yes, a lot of concerns. Mostly from seniors. Biggest concern was the cost and the amount of money being spent for renovations. A lot of people had donated money to furnish rooms and it was hard to see it go. A lot of hard work was put into raising money for the hospital.
- No.10: Yes, there was lots of concerns because the people in McAdam thought they would lose it altogether and not even get a Health Centre.

**Question #9 (c): Has anyone been admitted to the observation bed or 48 hour bed?**

Respondent	No.1:	Yes, self.
	No.2:	Yes, Father-in-Law for palliative care and it is a wonderful service.
	No.4:	Not personally. A friend used it for relief care and it is a wonderful service.
	No.5:	Yes, self.
	No.9:	Not personally. A friend stayed overnight and the room was cold.
	No.10:	Yes, husband.

**Question #10 (a): What are the strengths and weaknesses of the CHC?**

Respondent	No.1:	Service is better. There is no weaknesses now except that the meals could be improved.
	No.2:	Excellent service. Nurses are "on the ball".
	No.4:	The staff are a strength - very pleasant.
	No.5:	Good staff. Weakness: Men and women in the same observation room.
	No.9:	Excellent staff. (Special mention - Shirley, Myrna and ambulance attendants)
	No.10:	Strength - 24 hour coverage. Weakness: Medical coverage.

**Question #10 (b): Are there things that McAdam would benefit from?**

- Respondent No.1: There are no specialists on the premises. One has to travel long distances to see a specialist. X-ray machine would be good for McAdam. Harvey has one.
- No.2: Dentist in McAdam would be nice.
- No.4: Two doctors available at all times.
- No.5: Could not think of any.
- No.9: The Nursing Home is a good thing to have and would hate to be without it or the CHC.
- No.10: Programs are good. People need to take advantage of them.

**Question #11: How do you see yourself being responsible for your health? How does the Centre encourage you to be responsible for your health?**

- Respondent No.1: I have to take care of myself and I do "pretty good". The staff at the Health Centre are very accessible. Shirley Moffitt is invaluable.
- No.2: Yes, we better wake up and smell the roses. Have to look after ourselves. Example. Diet is very important. Low fat, low cholesterol and eat less salt. The Centre is a place to go if needed. All programs are printed in the Fortnighter.
- No.4: Believe in preventative medicine and taking good care of self. Keeping informed. Proper diet, rest, exercise. Aware of self, and good sleep habits are ways of being responsible for my health. Enrolled in the "Aging Well" program at the CHC. Also at the Health Centre there are pamphlets, information on the walls. Notes of meetings on the walls and Dr. Lam gives cooking classes.
- No.5: Yes, we have to be responsible for our own health. It takes a whole lifetime of living right and I know a lot about my health. By attending the Diabetic Clinic at the Centre.
- No.9: Have to watch what we eat. Not take too many pills. Watch your weight. Cable TV tells us what is happening at the Centre, i.e. programs on the heart, arthritis, diabetes, and medications. They also give workshops and charge \$5 or \$10. Some people can't afford to pay. These should be free.
- No.10: Pay attention to diet. Exercise regularly. The Health Centre publishes articles in the Fortnighter. Articles on different topics in each publication. They also encourage anonymous letters.

**Question #12: What do you wish to say to the Evaluation Committee?**

- Respondent No.1: I think they are doing a pretty good job. Service is better.
- No.2: Positive. I can't say enough good things. Seems to be working very good. Care is there if you need it. There is a need to get a trained Physiotherapist. The one we have now is leaving and we don't want to travel to Fredericton.
- No.4: Very happy with the services. Don't need any more services then what we have with all the restraints on all of us today. Haven't heard any complaints from others.
- No.5: They are doing a good job and I am trying to take care of myself.
- No.9: It's nice they are taking the time to ask people's opinion and hope they can make the necessary changes.
- No.10: Not happy with medical coverage. People waiting to see one particular doctor have to wait a long time because he is so busy.



**General Observations:**

1. The overall impression is the majority of the people surveyed are happy with the health services in McAdam.
2. Most of the respondents mention the excellent staff.
3. The people equate the quality of care directly to the quality of the staff and not to any change in the delivery of care.
4. The majority still expect to see the doctor when they present themselves to the Community Health Centre.
5. The people see the biggest change as losing their beds but the fear created by this event has disappeared as they see the service maintained.
6. They like the observation beds being available for palliative care and relief care.

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**Appendix J.**

**CONSULTATION WITH OTHER HEALTH SERVICE PROVIDERS**

**Relationship Between The  
McAdam Community Health Centre  
and  
N.B. Extra-Mural Program  
and  
Public Health**

Prepared by:  
Betty MacWilliam, R.N., B.N.

**For  
McAdam Community Health Centre  
Evaluation Committee**

July 10, 1996

The following is documentation of interviews conducted to determine the relationship between the Community Health Centre and Public Health and the New Brunswick Extra-Mural Program.

### **New Brunswick Extra-Mural Program (EMP)**

The clinical coordinator responsible for the McAdam Unit of the EMP was interviewed to determine the degree of communication between EMP and the Community Health Centre in McAdam.

#### **Interdisciplinary Committee**

One of the local staff nurses is a member of the interdisciplinary team functioning in McAdam. They attend meetings on a regular basis and are comfortable participating at these meetings. The inclusion of the EMP staff nurse was initiated at the very beginning and is seen as a positive move.

#### **Role in Community**

The staff of the EMP working in McAdam provide health care to residents of McAdam in their homes. The patients are referred by the attending physician. The nurse will refer patients to other health professionals within the Extra-Mural Program (Q.T., P.T., R.D., R.T., S.W.) and/or to the Health Centre after an assessment is made of their needs.

In addition to the above, the nurse acts as a liaison with the Health Centre. In this capacity, the nurse visits the Health Centre daily, meets with the staff and discusses with the staff at the Health Centre, any referrals that will need intervention by the EMP staff at home.

### Communication

It is stressed that communication between EMP staff and the McAdam Health Centre is good.

### Barriers

If there is a barrier, it would be the fact that the EMP serves as a hospital and because of this, a physician must admit and discharge patients to/from the EMP. Therefore there cannot be direct referrals from the Health Centre to the EMP except by a physician.

Another barrier mentioned was the lack of education programs to define and explain the new roles of all health professionals working in this new environment.

### Physical Presence

There is a room designated for the EMP staff at the Health Centre. This area gives staff access to a phone, a place to document their interventions, etc., and a place to meet with other staff and family members. (Other professional staff travel from Fredericton when their expertise is required in McAdam.)

## Public Health

The second interview was with the Public Health Staff Nurse working in McAdam.

### Interdisciplinary Committee

The Public Health Nurse working in McAdam is a member of the Interdisciplinary Committee. She has been a member of this committee since the beginning of the project and is seen as a positive initiative.

### Role in the Community

The Public Health Nurse provides health services to the community by conducting clinics, assessing clients and providing Public Health services to schools. They refer clients to appropriate professionals in the community or elsewhere as needed. Referrals are made to the health centre also if necessary.

### Communication

Staff at the Health Centre are very helpful and there is a lot of cooperation between the two staffs. However, it was felt there are times when communication could be improved. An example of this is not always knowing what services are provided by who.

### Physical Presence

The Public Health staff conduct clinics at the Health Centre on a regular basis. These clinics are scheduled for specific times and are assigned a room or space in the Health Centre.



### Barriers

There is some indication of duplication of services in the community. An example of this is the prenatal classes. It is not clear who is responsible for these services. It would seem that more effective communication is needed to clarify this aspect of the programming.

A greater understanding of all roles is needed to determine who does what, when and where. It was suggested the interdisciplinary committee might be a good avenue for discussing these issues.

It was mentioned that teens are missing out on some services in the community. One of the reasons for this is because teens do not wish to go to the health centre for various reasons. (i.e. privacy reasons)

There is also a suggestion that services needed in the community are speech therapy services and dental services.

There is a lot of respect demonstrated between all staff which is a good indication of their willingness to work collaboratively to continue the good work being done in McAdam.

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**Appendix K.**  
**LETTER OF SUPPORT**



Westroc Industries Limited  
Quality Way  
P.O. Box 390  
McAdam NB  
EOH 1K0  
Tel 506 784-2215  
Fax 506 784-3204  
Sales Desk 1-800-273-2533

January 25, 1996

McAdam Health Center  
McAdam, NB  
EOH 1K0

Sir/Madam,

Unfortunately, over the past two years we have had several accidents at our facility that have required emergency medical treatment. Some of these were minor in nature and were dealt with quickly at the health center, while at least one other required stabilization at the health center before transfer to the Dr. Everett Chalmers Hospital in Fredericton for surgery. To have emergency medical treatment available within minutes has been invaluable to Westroc as an employer and to all of our employees.

Accidents will occur and when they do, having expert care available close by can mean the difference between life and death for those involved. Because of our strong commitment to a safe workplace for our employees, this factor was considered before the decision to purchase this plant was made several years ago.

We thank you for your service to our facility and wish you continued success upon completion of your pilot project which should serve as an example of how to provide comprehensive health care in small communities.

Sincerely,

J. David McInnis  
Co-Chair JOHSC

Roger Gardner  
Co-Chair JOHSC